Catalytic asymmetric synthesis of acyclic arrays by tandem 1,4-addition-aldol reactions

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Supporting Information

Catalytic Asymmetric Synthesis of Acyclic Arrays *via* Tandem 1,4-Addition-Aldol Reactions

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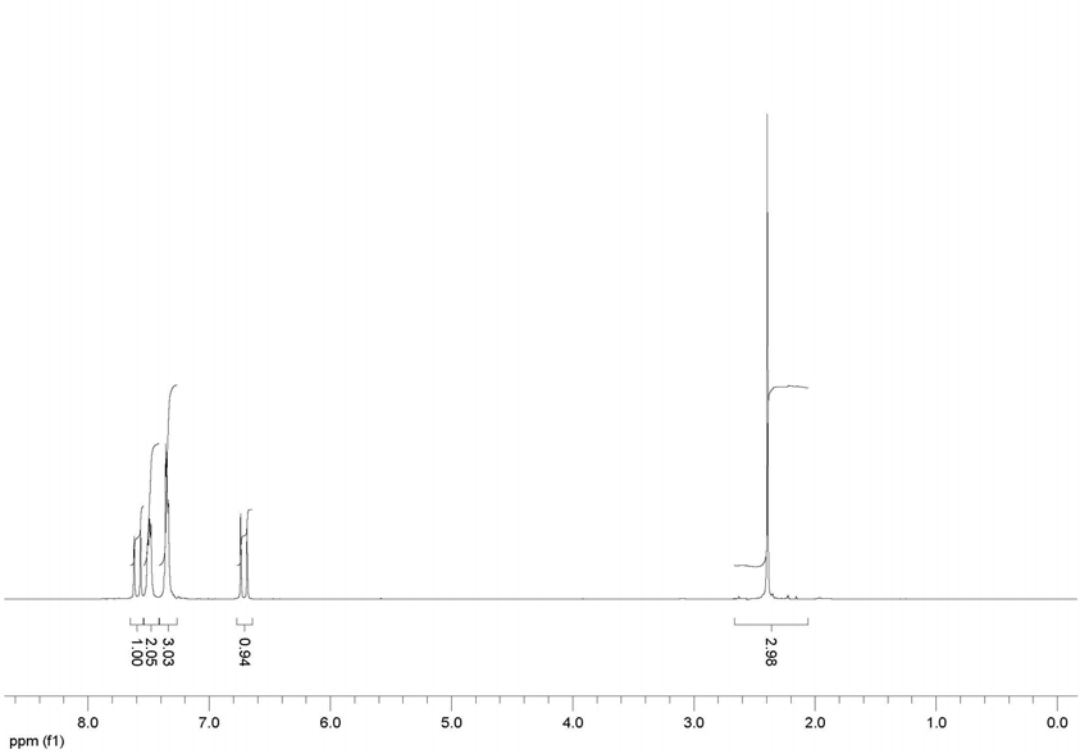
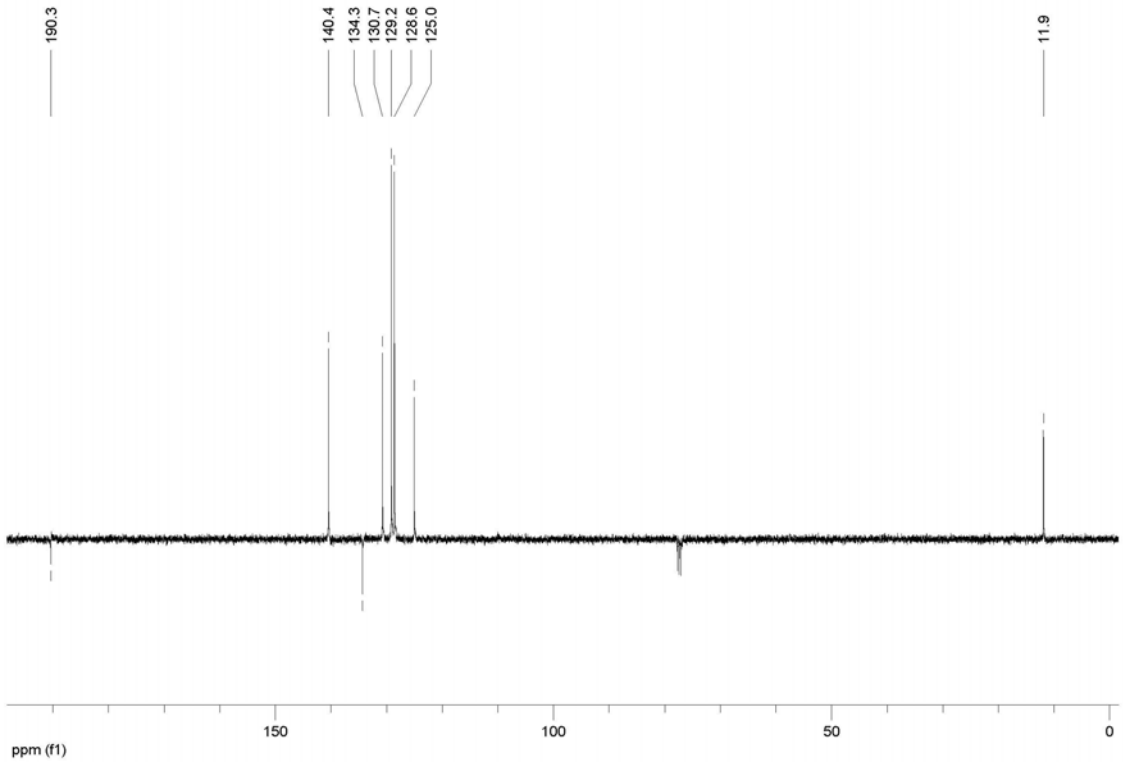
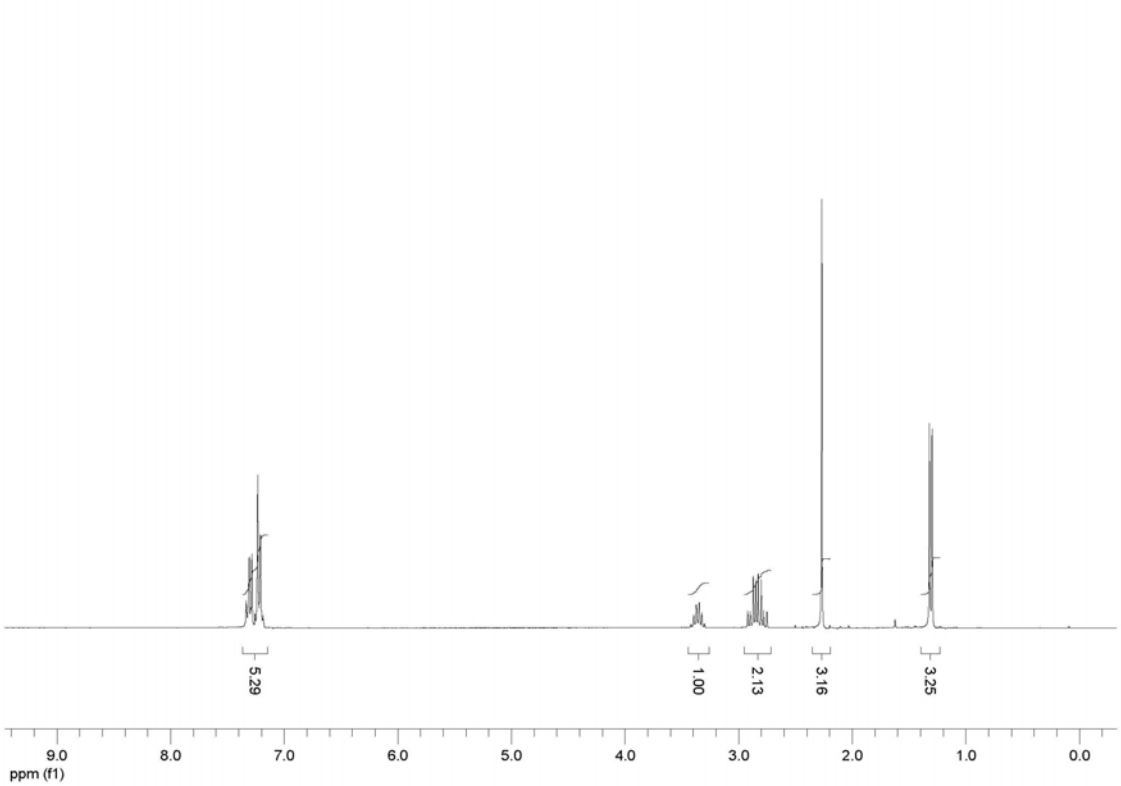
8 (^{1}H NMR)



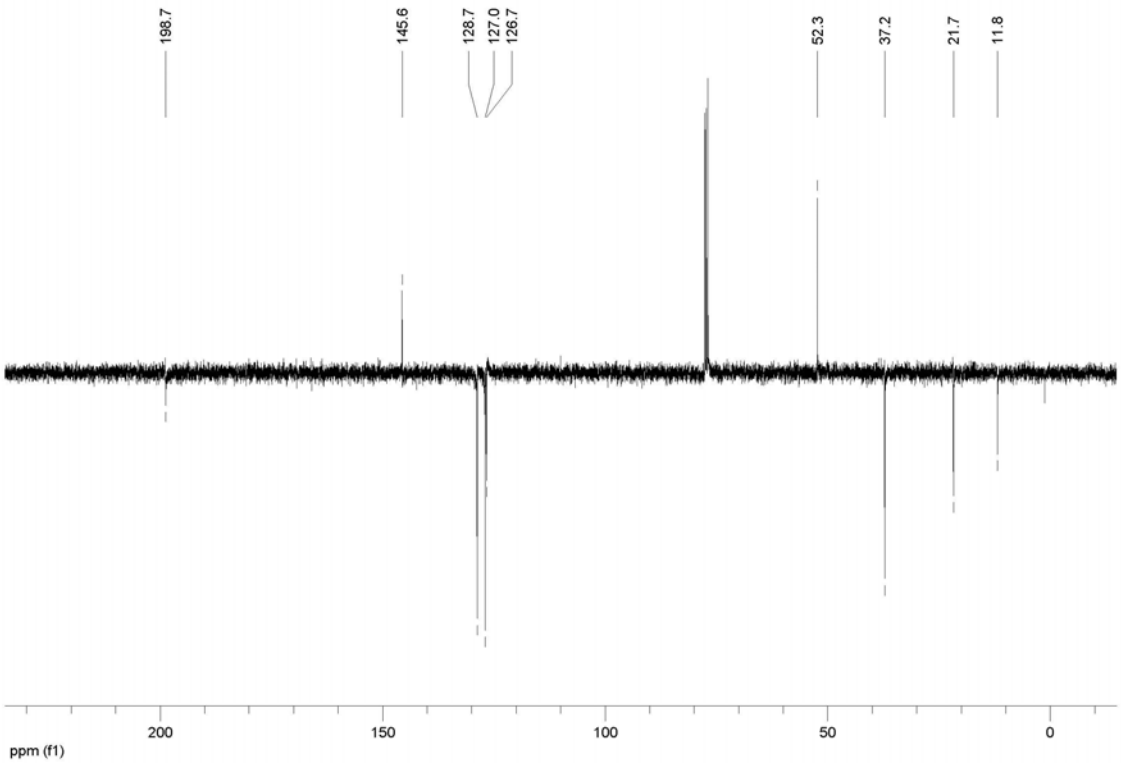
8 (^{13}C NMR)



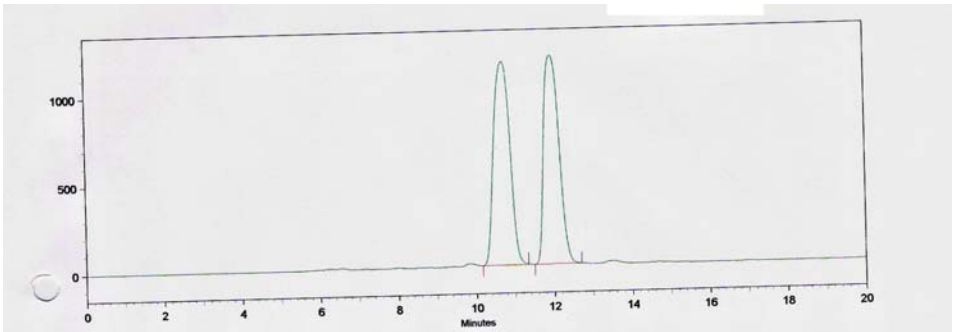
10 (^{1}H NMR)



10 (^{13}C NMR)



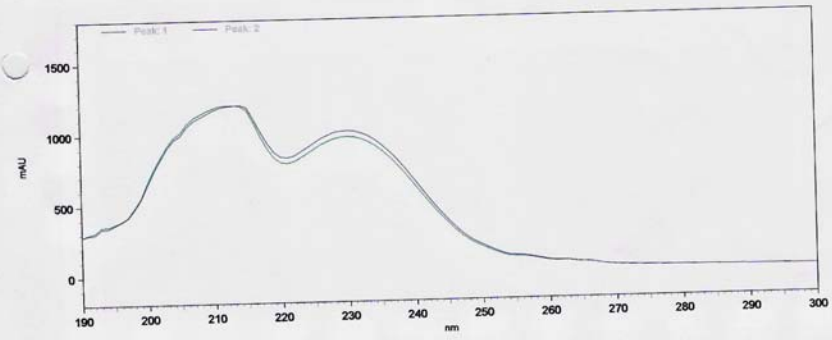
10 (HPLC)

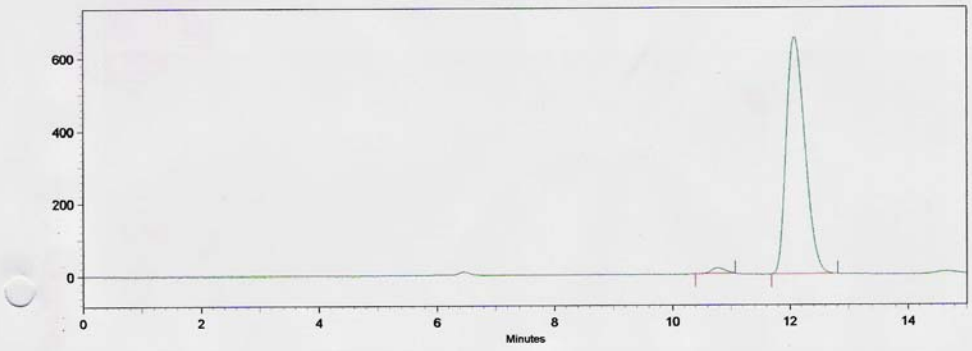


3: 210 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		10.741	33767518	51.16
2		11.979	32230333	48.84
	1			
	2			
Totals			65997851	100.00

Peak: 1

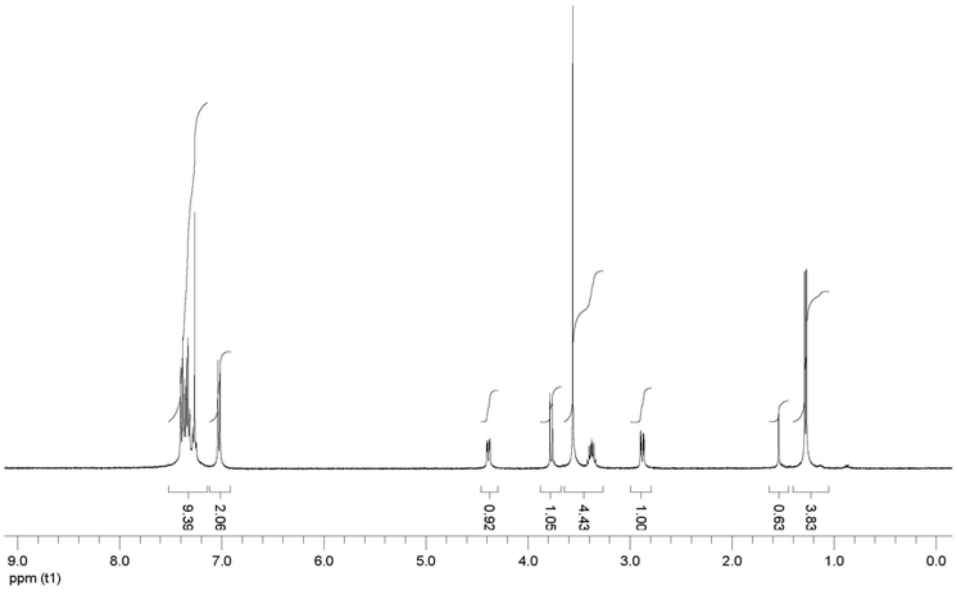




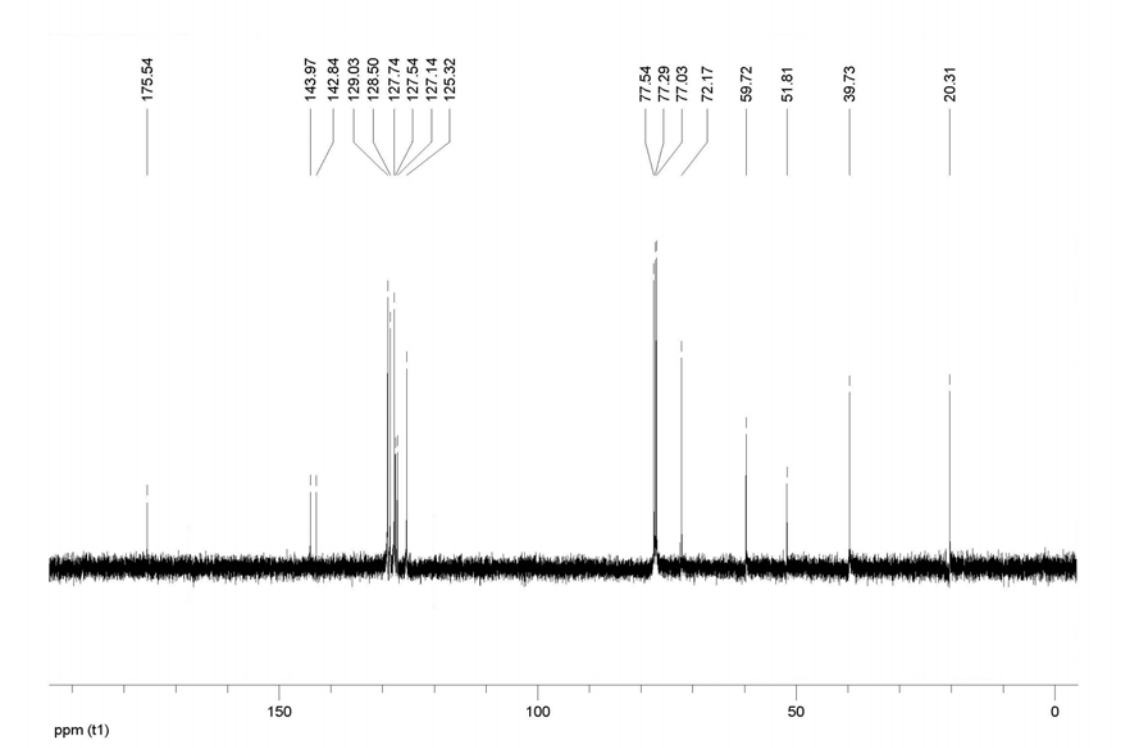
3: 210 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1	1	10.763	241186	1.65
2	2	12.075	14394477	98.35
Totals			14635663	100.00

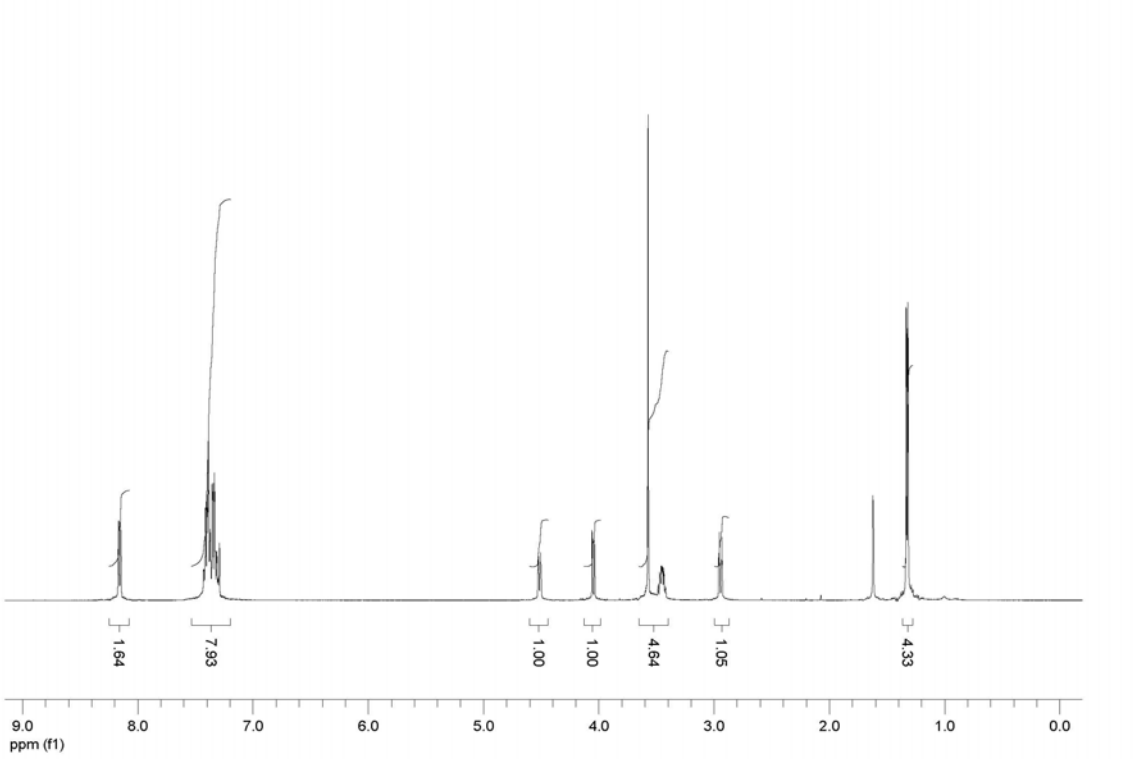
11a (^{1}H NMR)



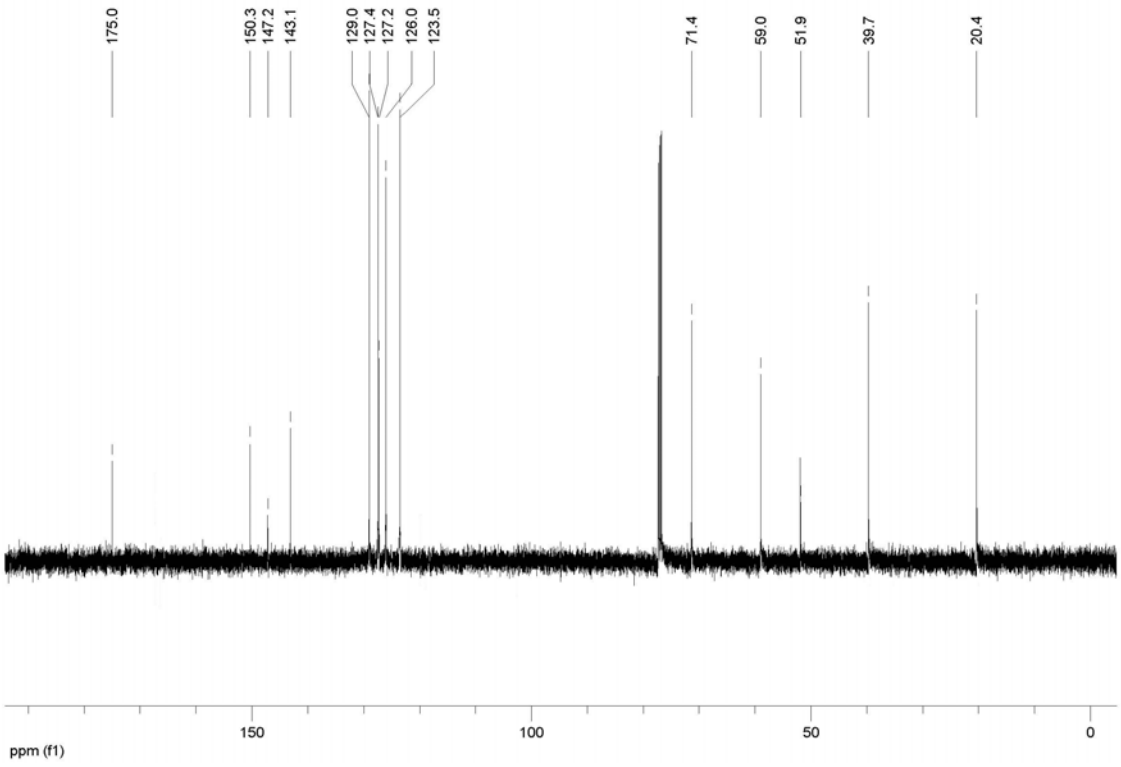
11a (^{13}C NMR)



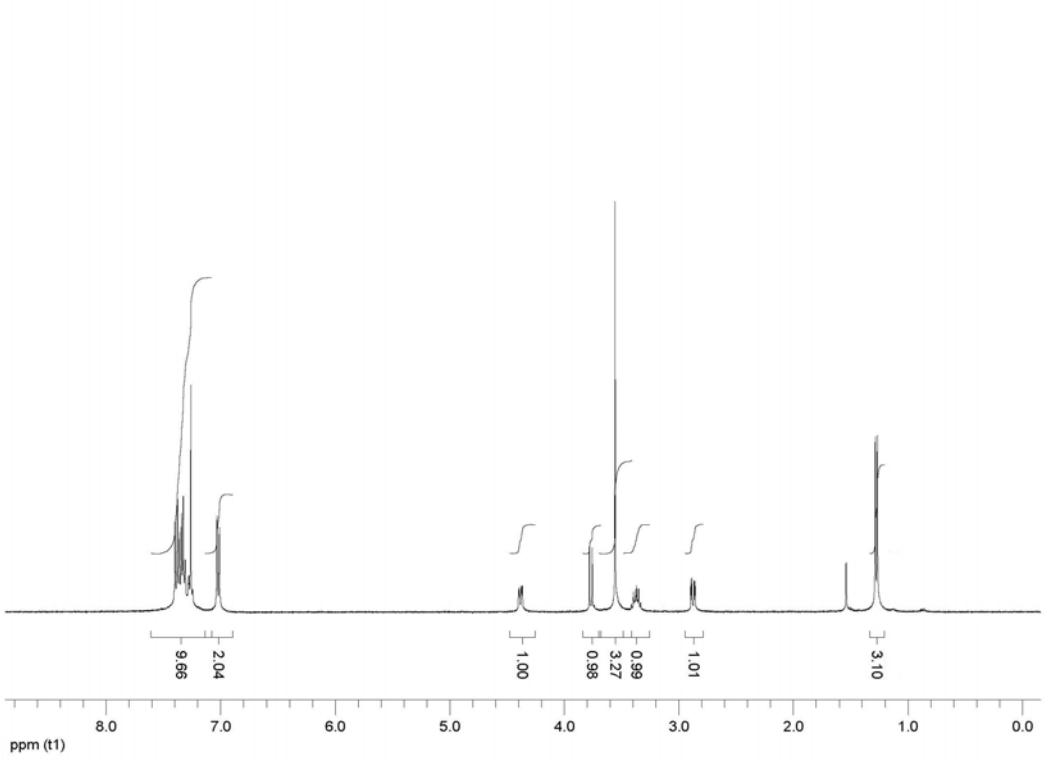
11b (^{1}H NMR)



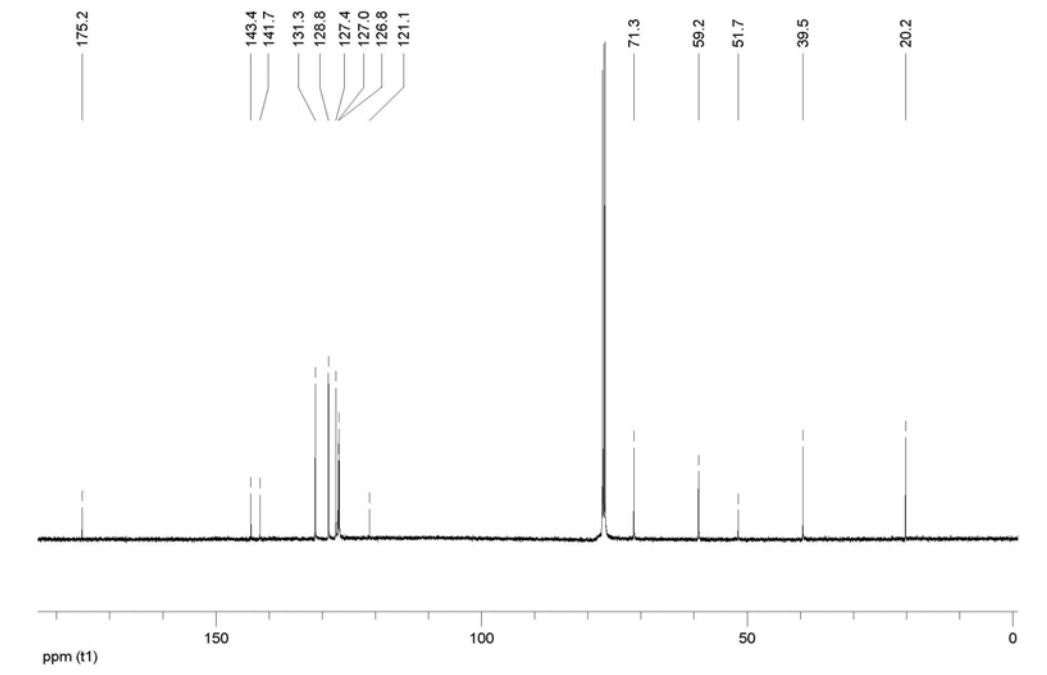
11b (^{13}C NMR)



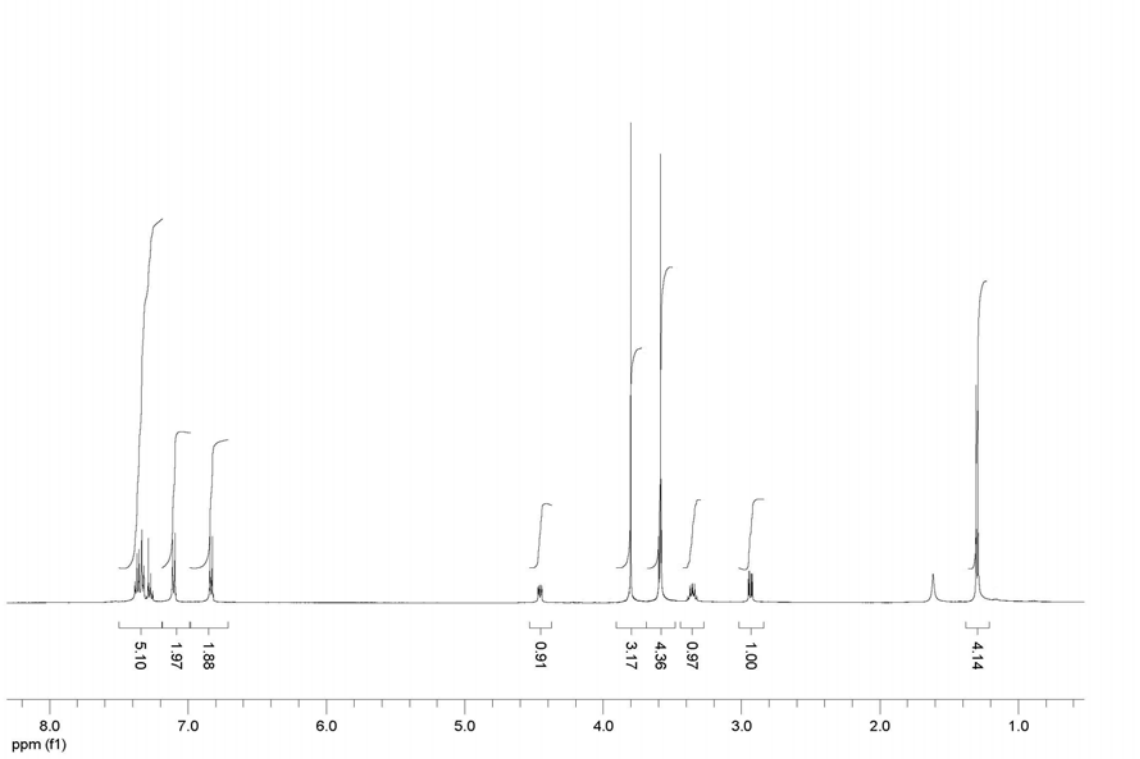
11c (^{1}H NMR)



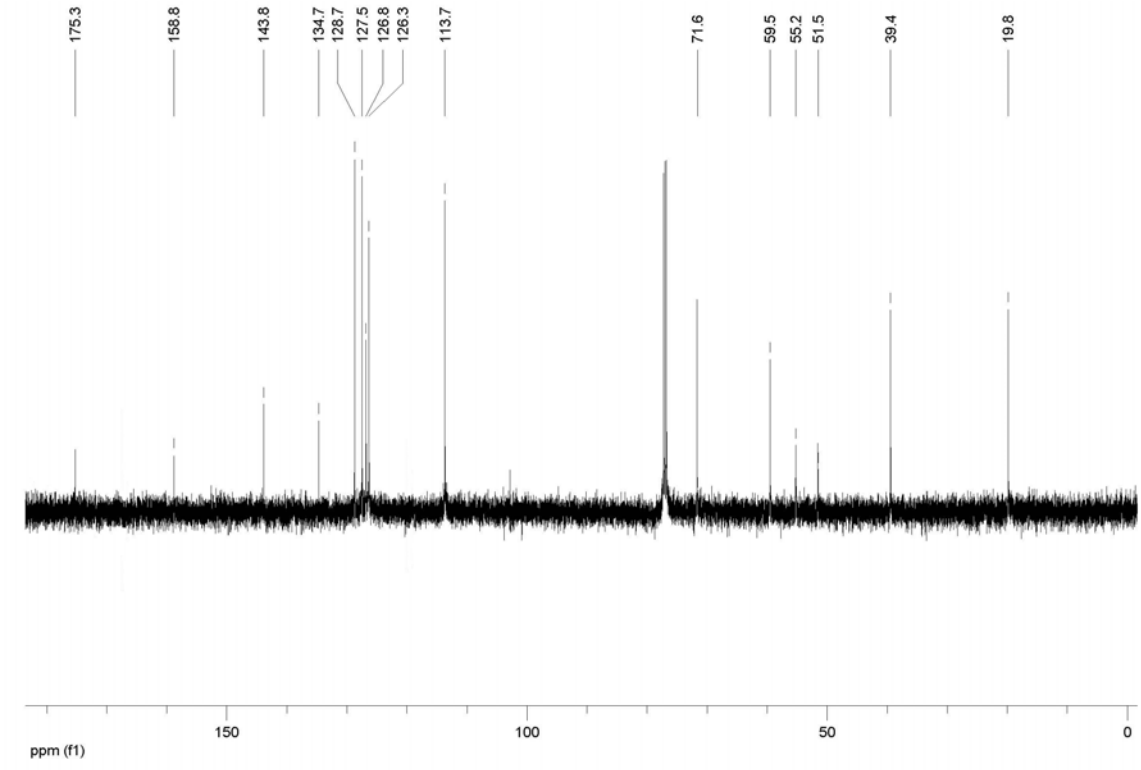
11c (^{13}C NMR)



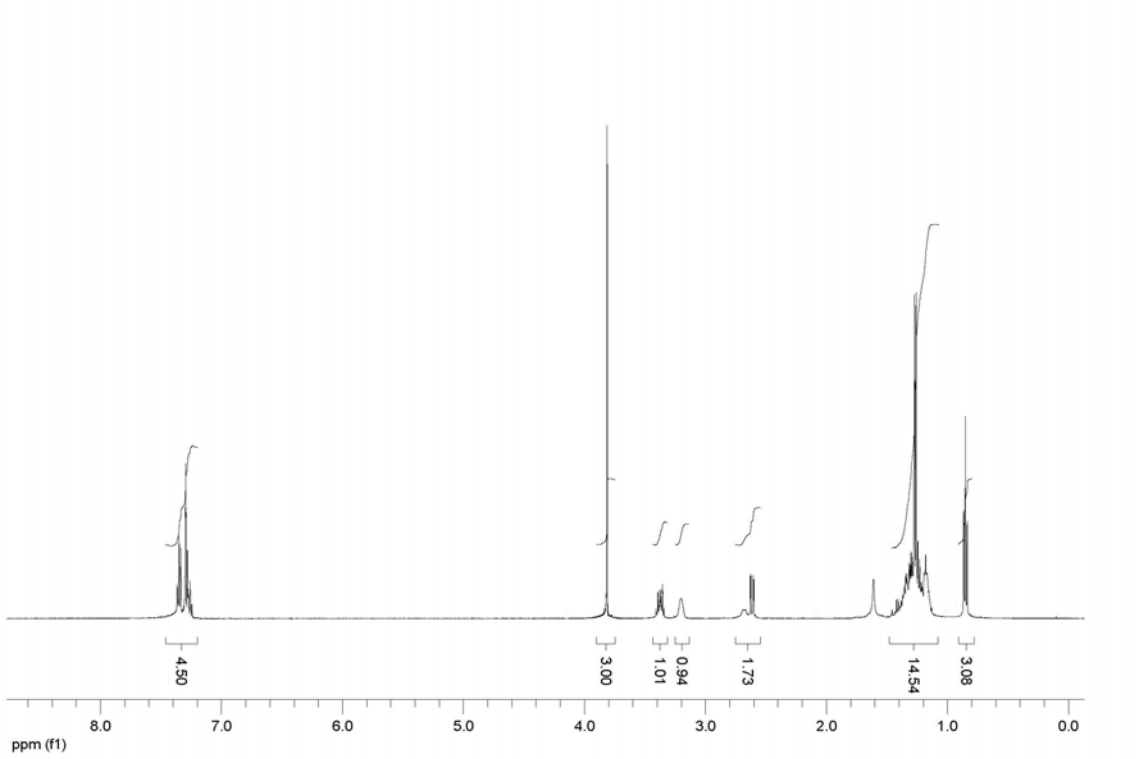
11d (^{1}H NMR)



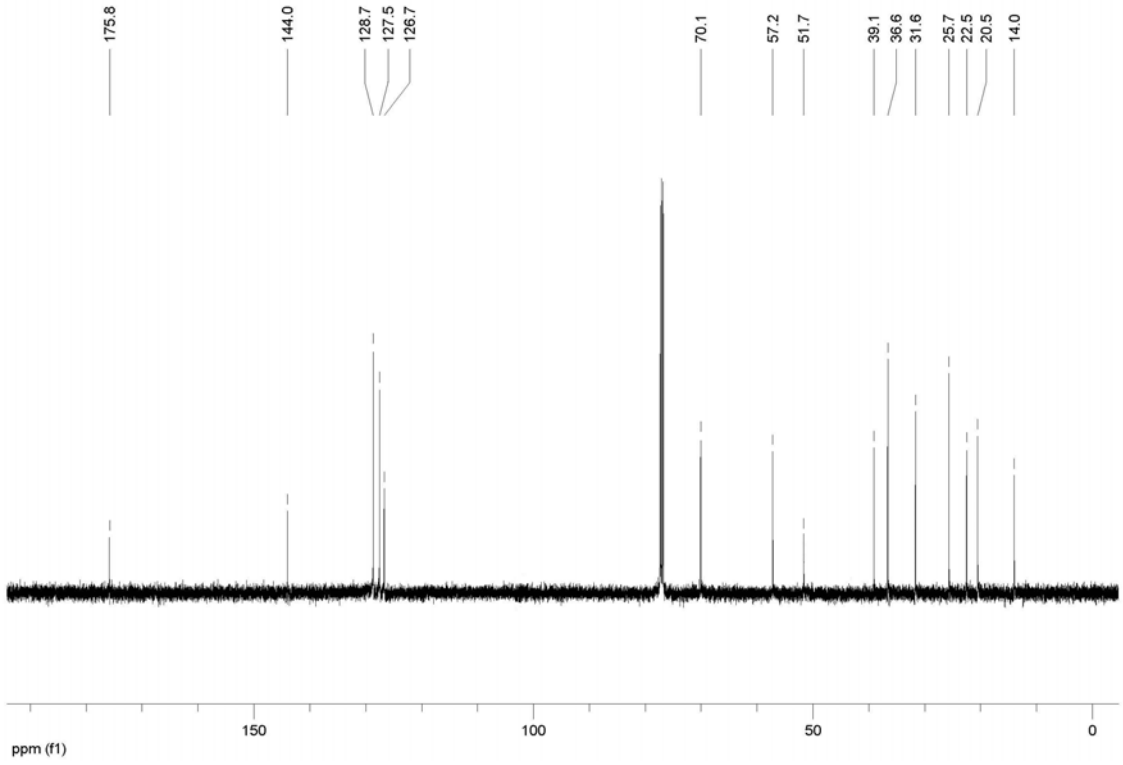
11d (^{13}C NMR)



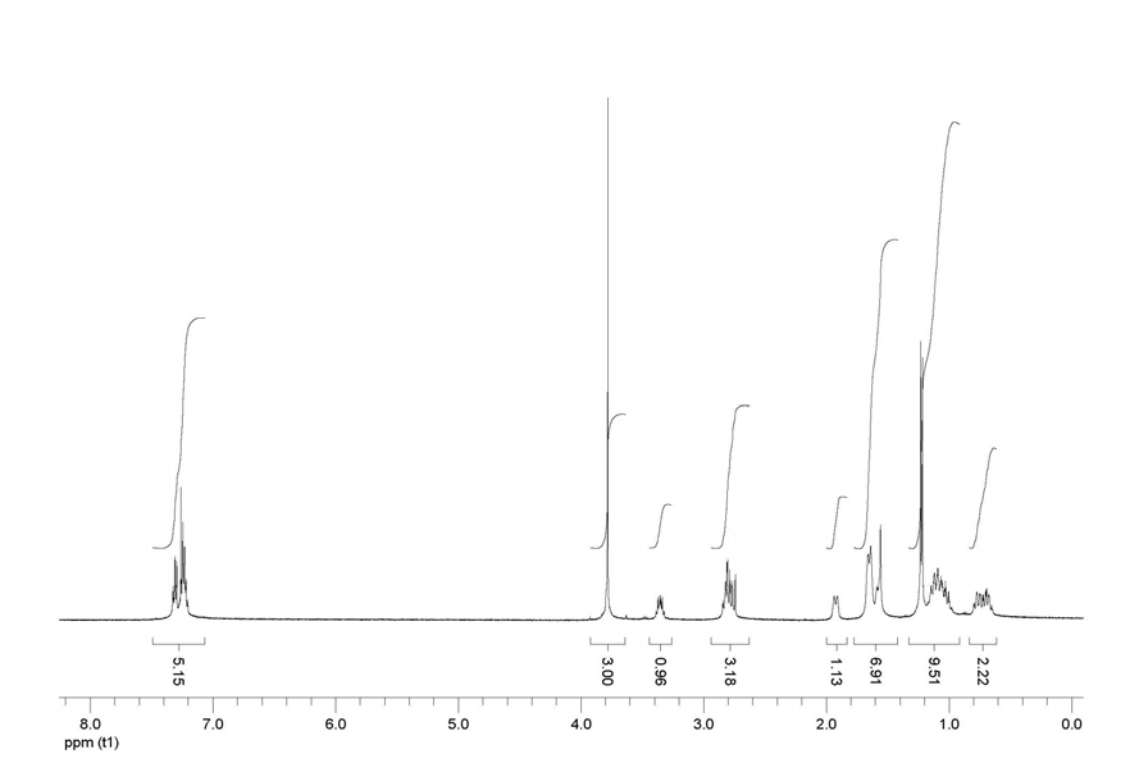
11e (^{1}H NMR)



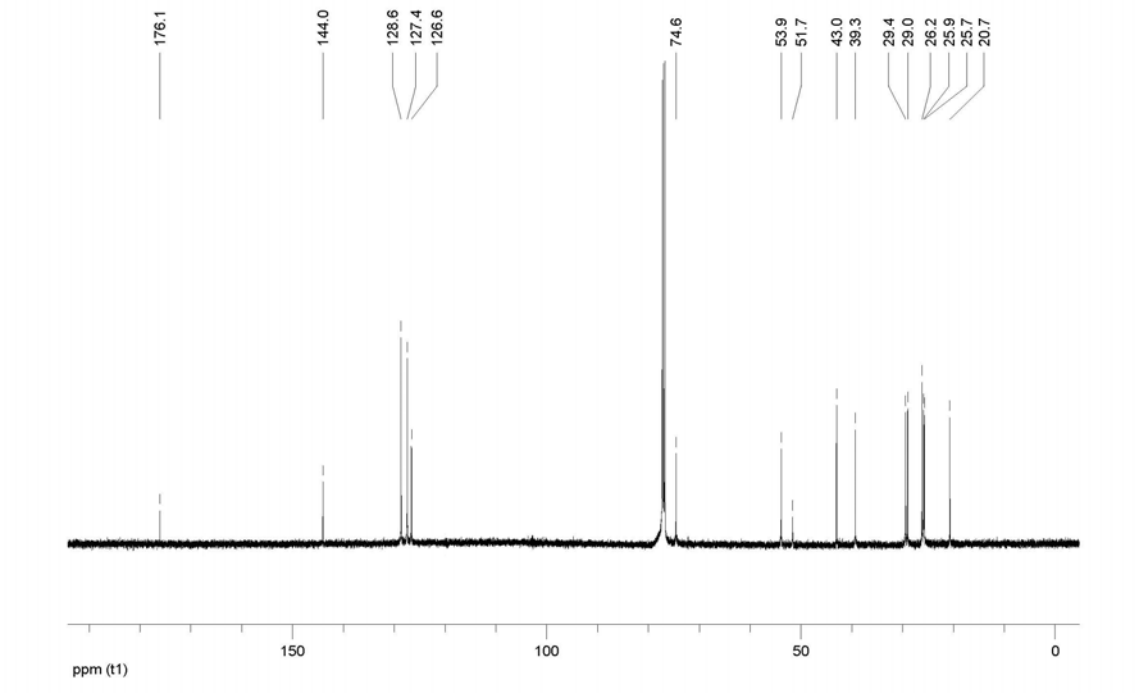
11e(^{13}C NMR)



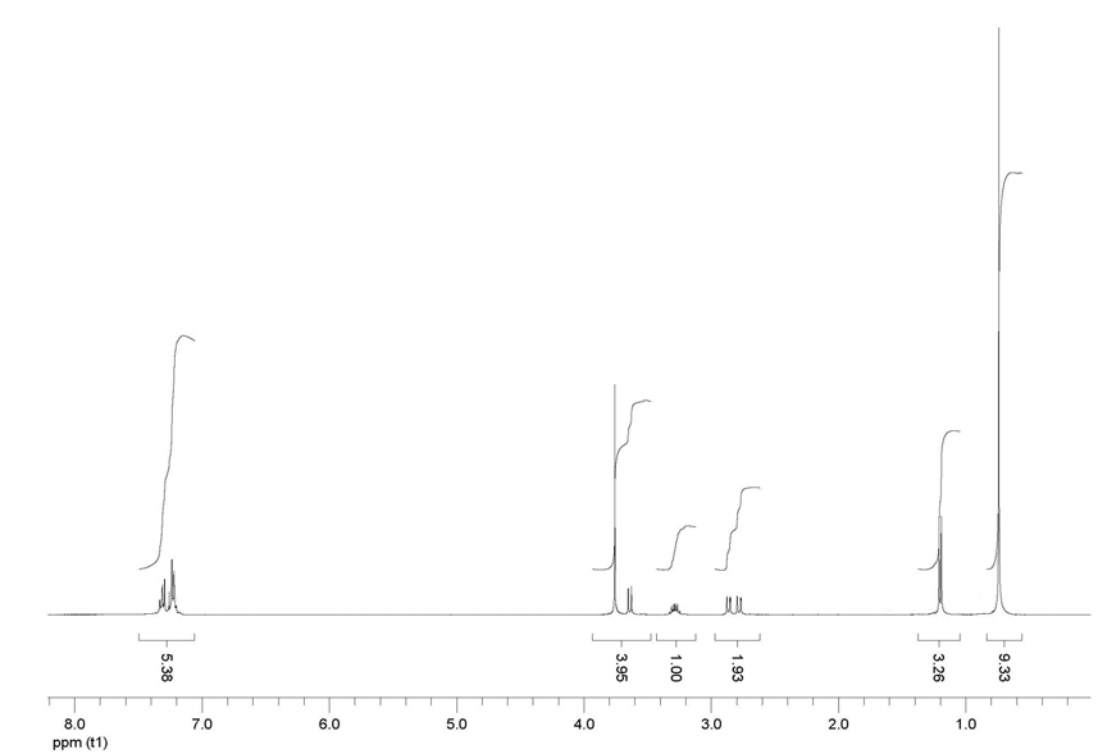
11f (^{1}H NMR)



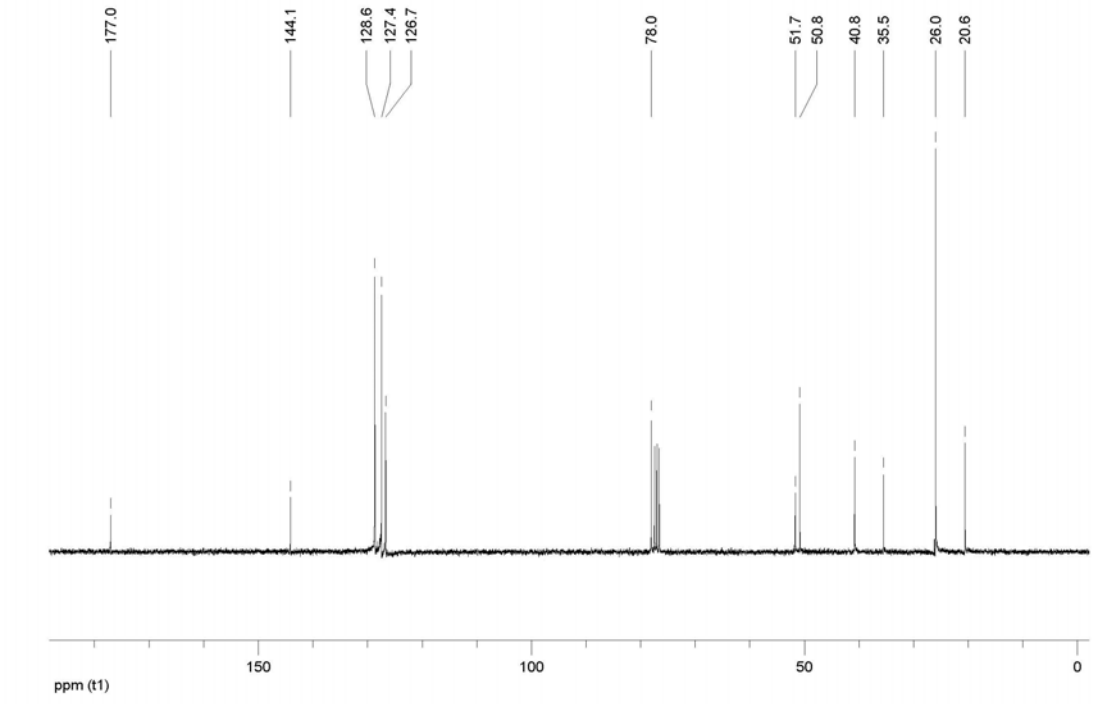
11f (^{13}C NMR)



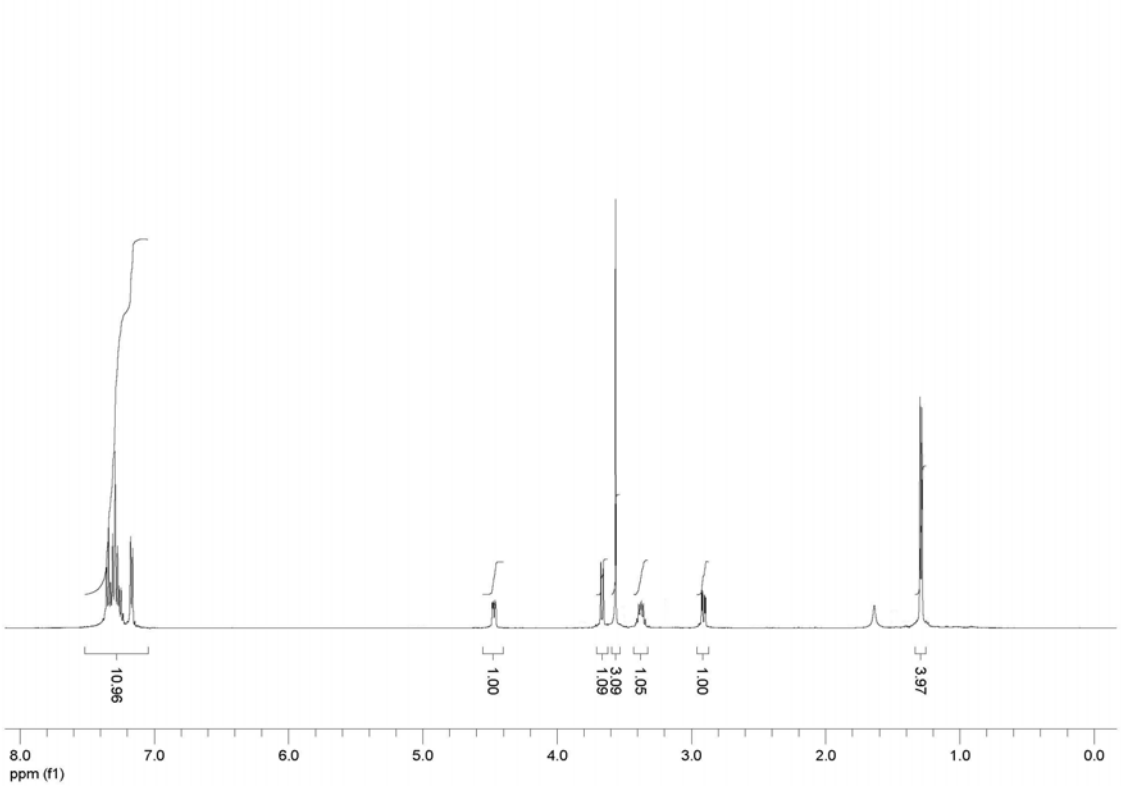
11g (^{1}H NMR)



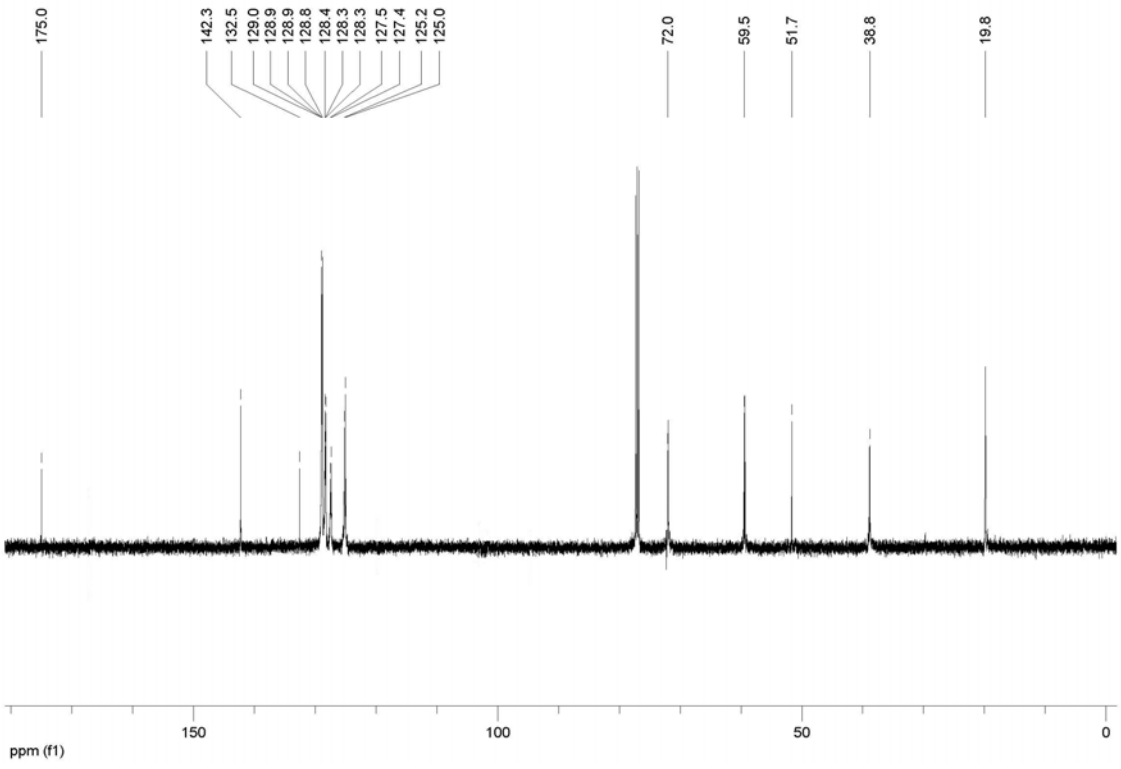
11g (^{13}C NMR)



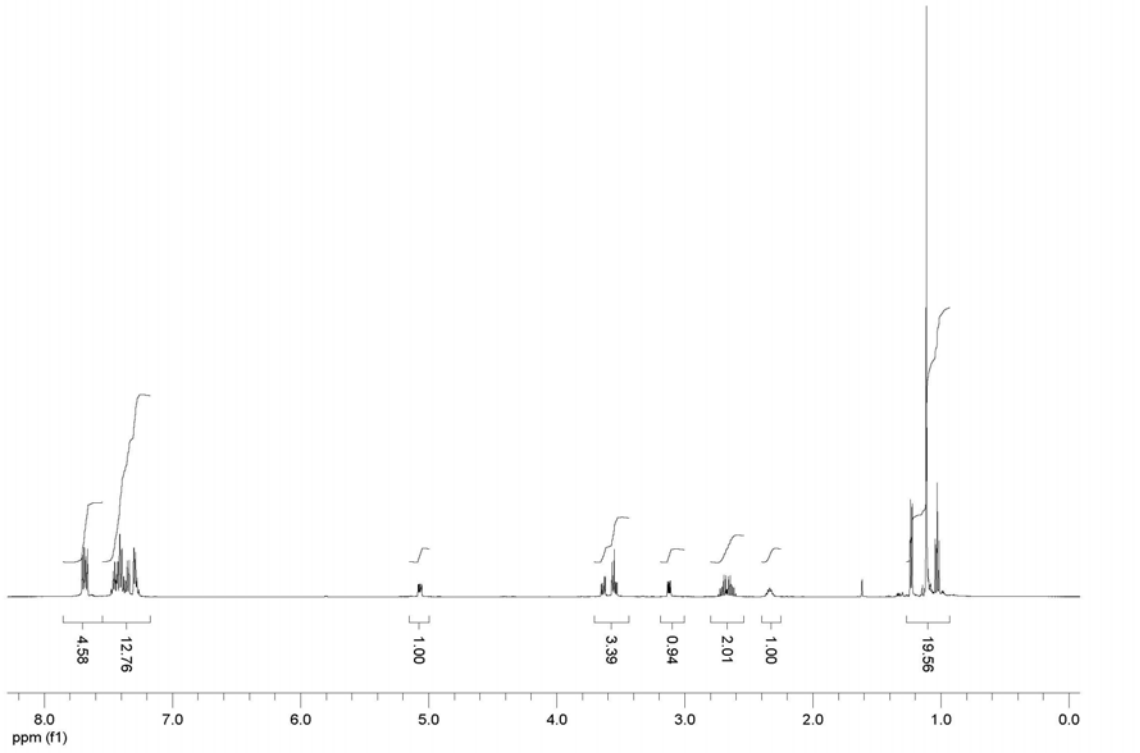
11h (^{1}H NMR)



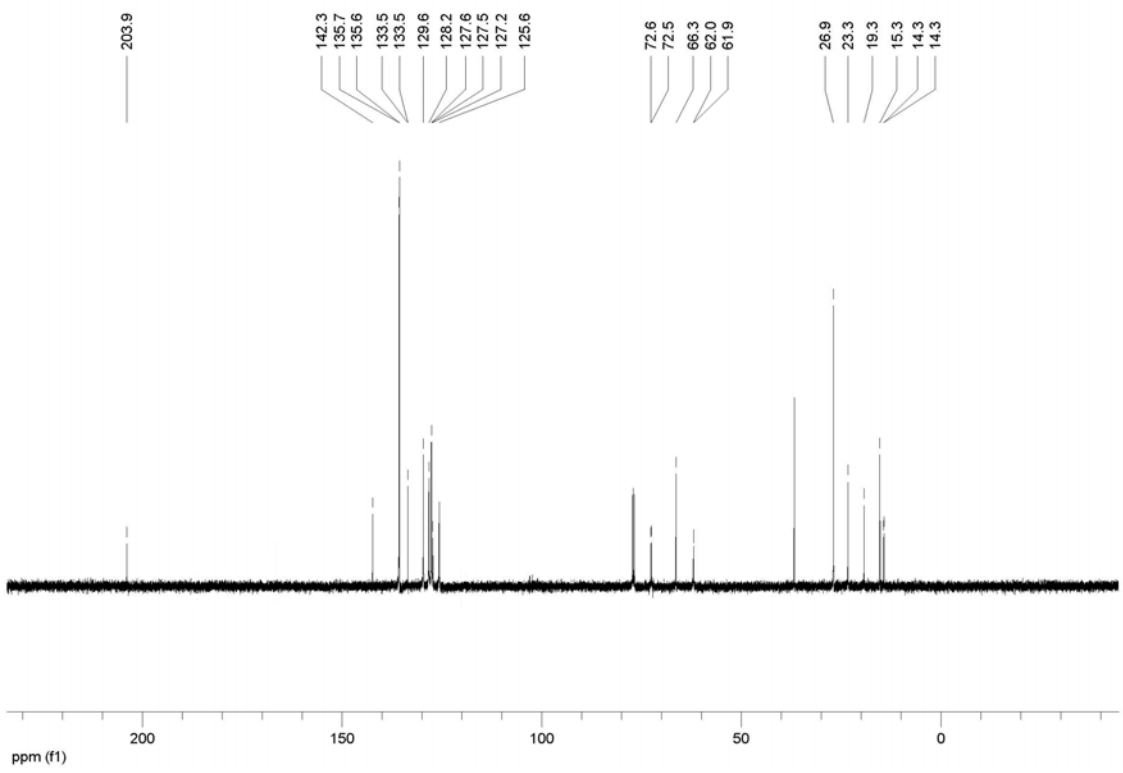
11h (^{13}C NMR)



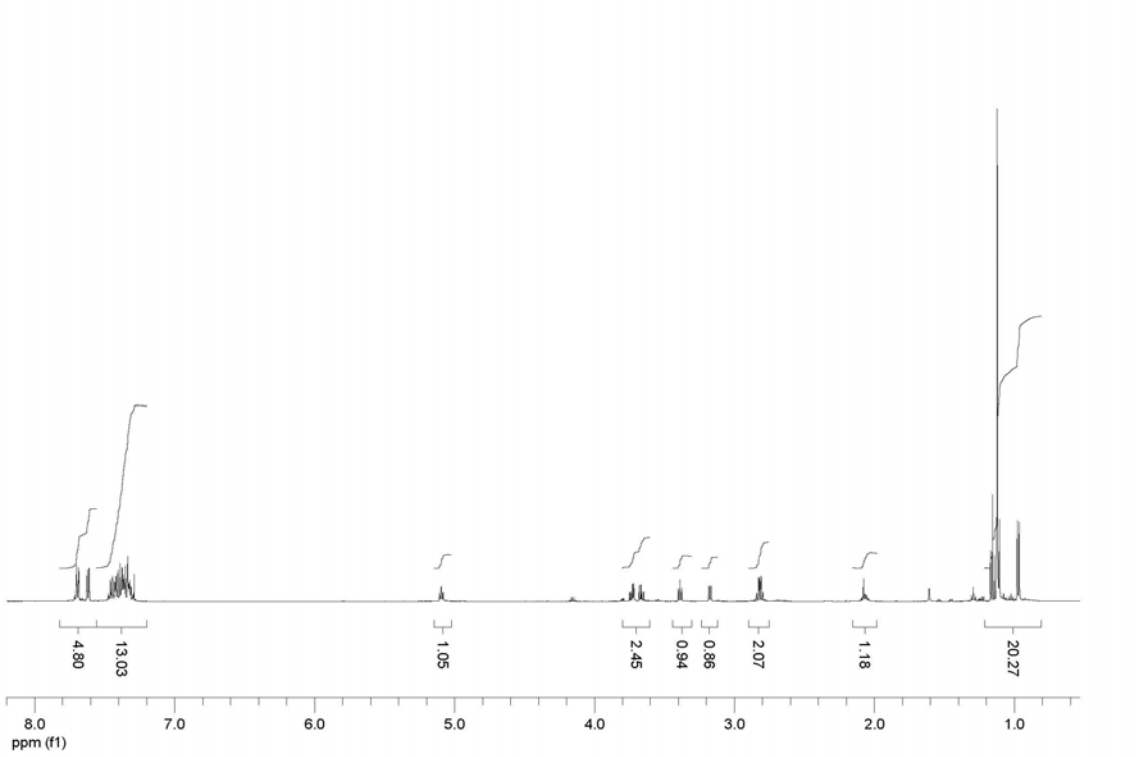
11j first diastereomer (^{1}H NMR)



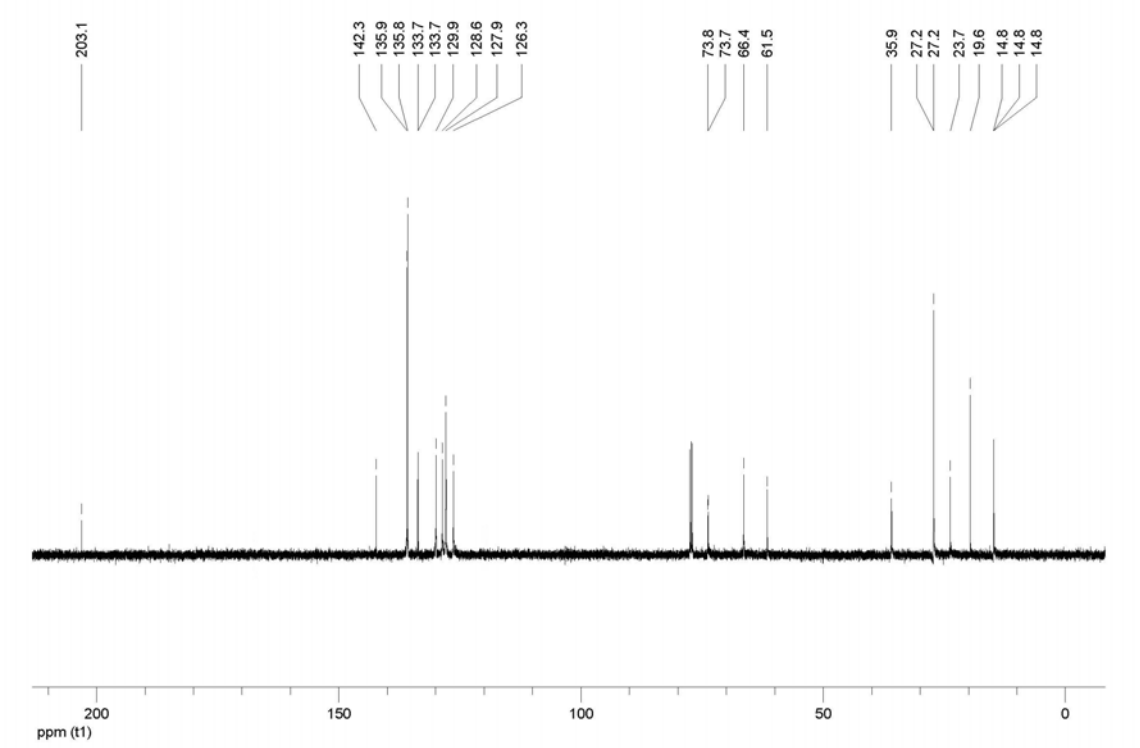
11j first diastereomer (^{13}C NMR)



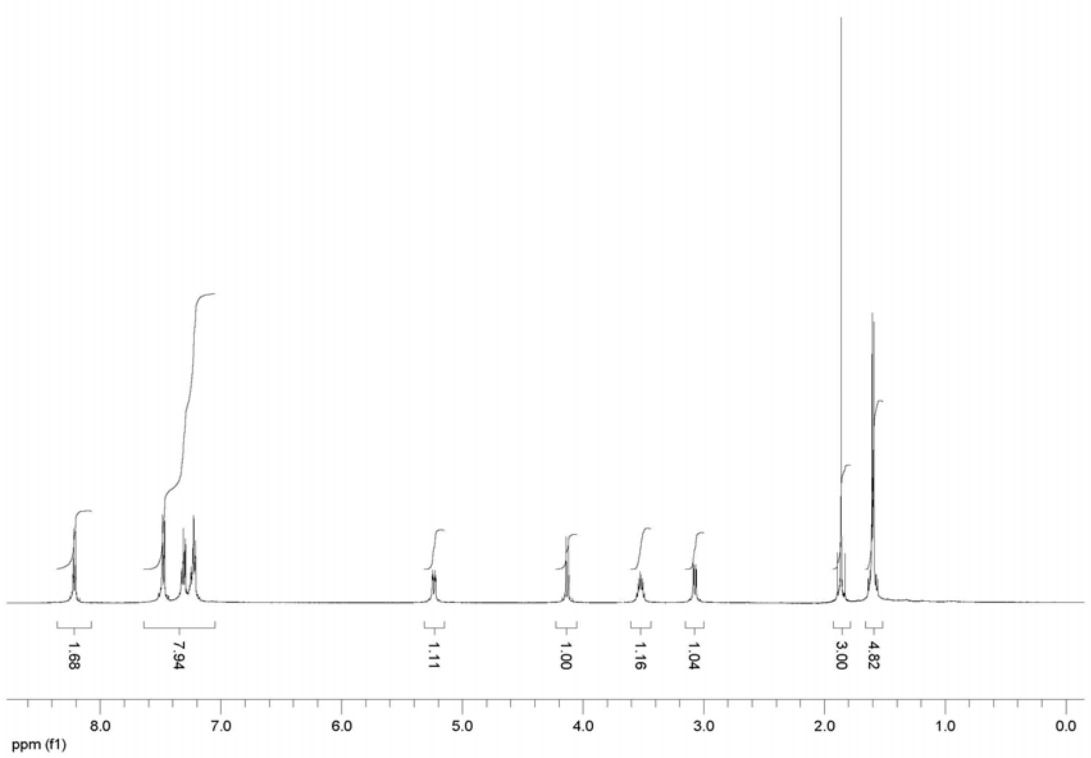
11j second diastereomer (^{1}H NMR)



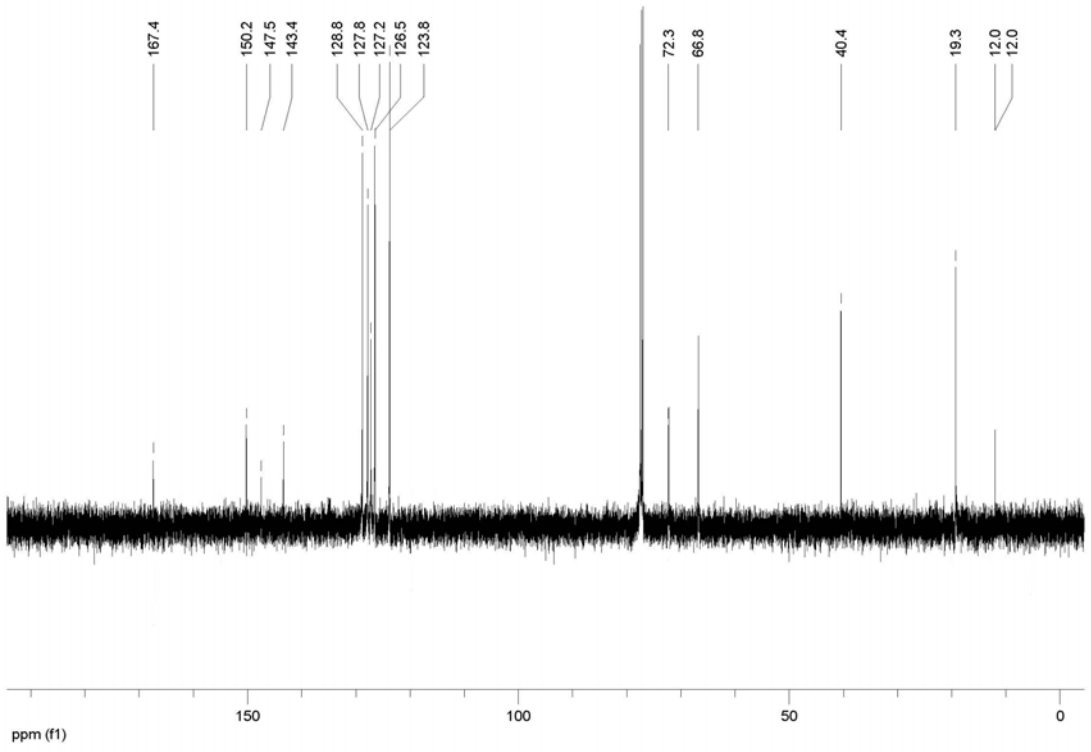
11j second diastereomer (^{13}C NMR)



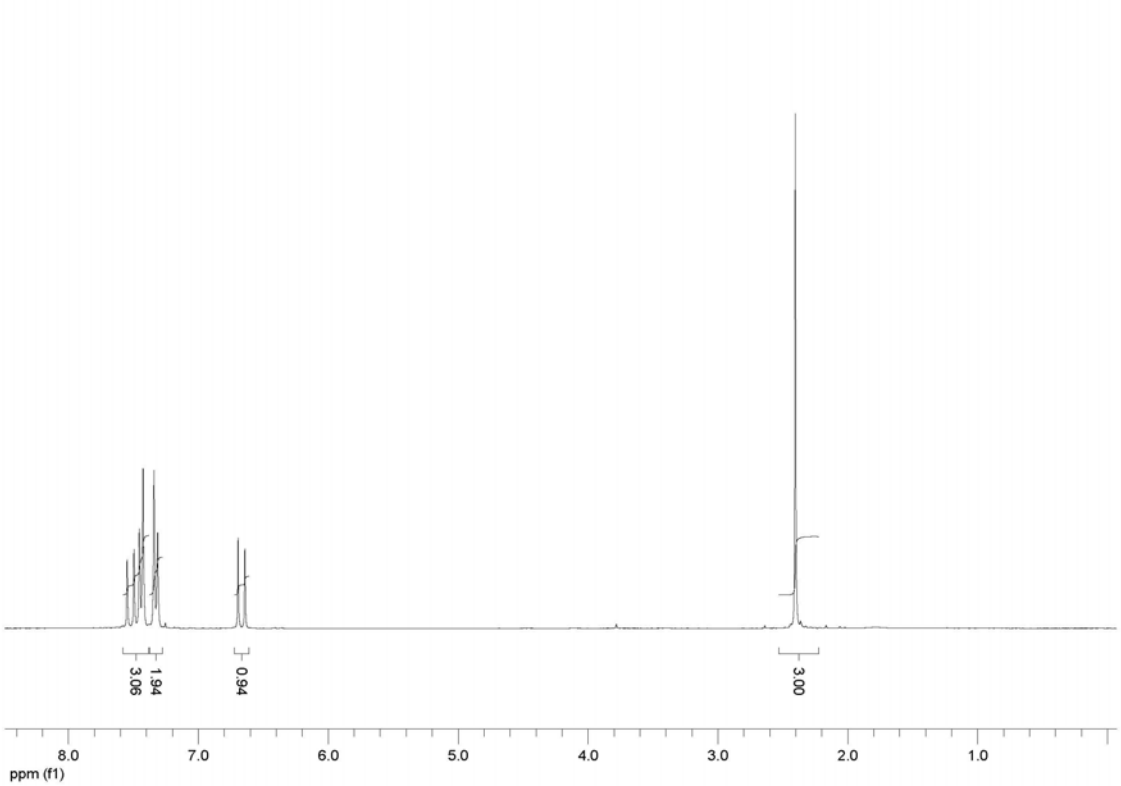
12b (^{1}H NMR)



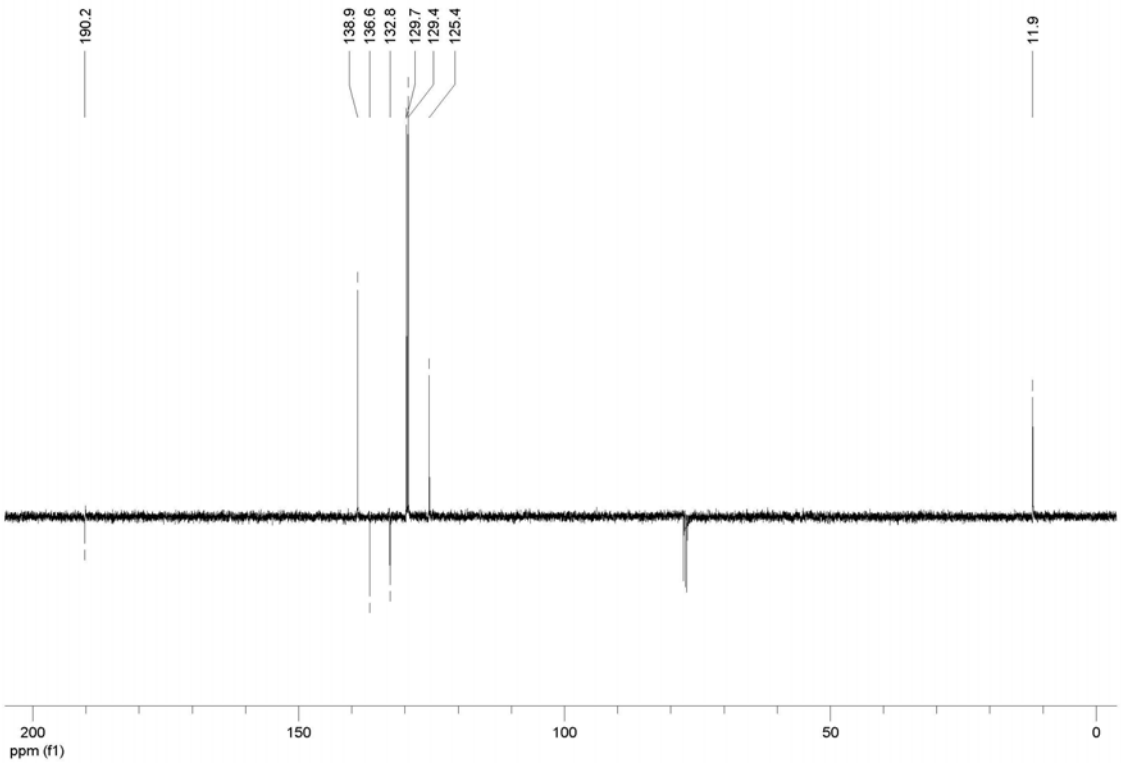
12b (^{13}C NMR)



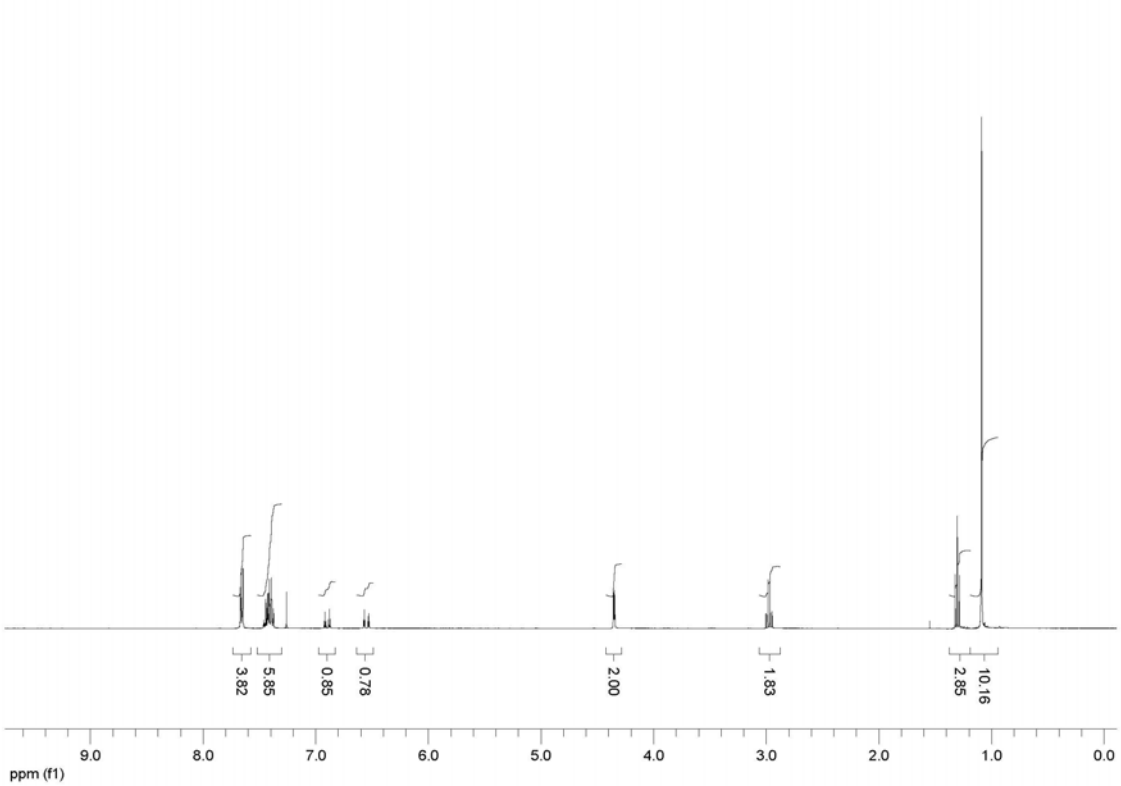
18 (^{1}H NMR)



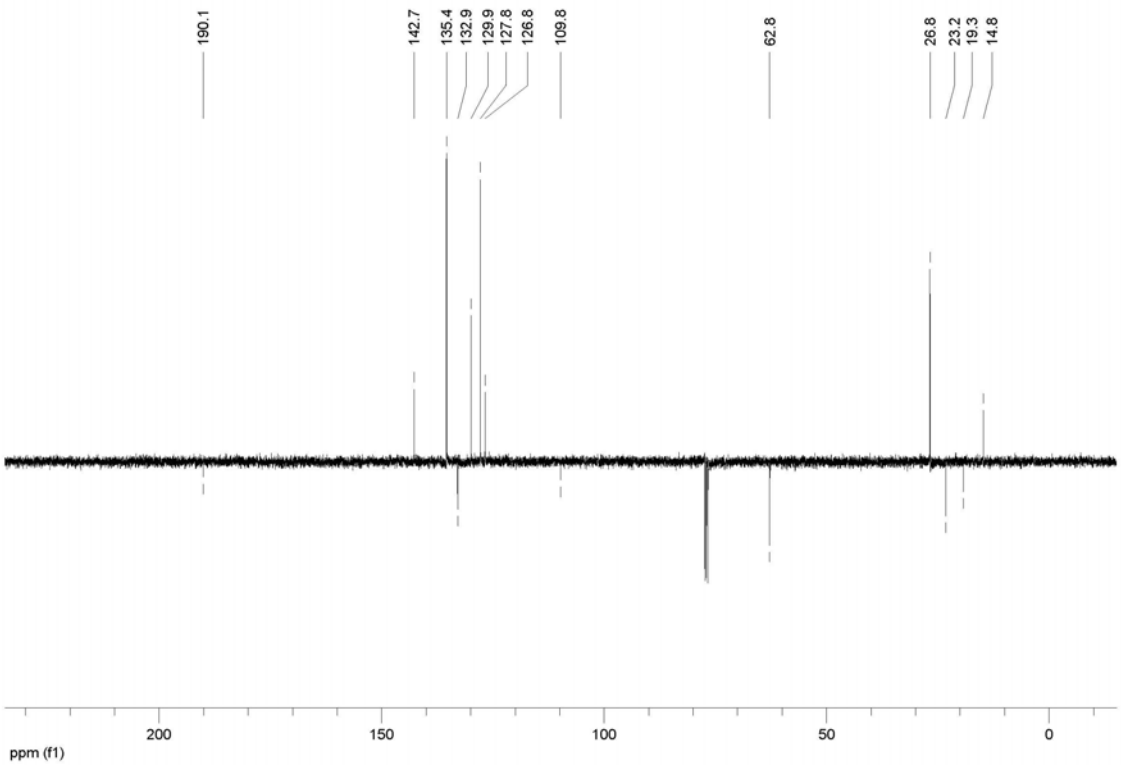
18 (^{13}C NMR)



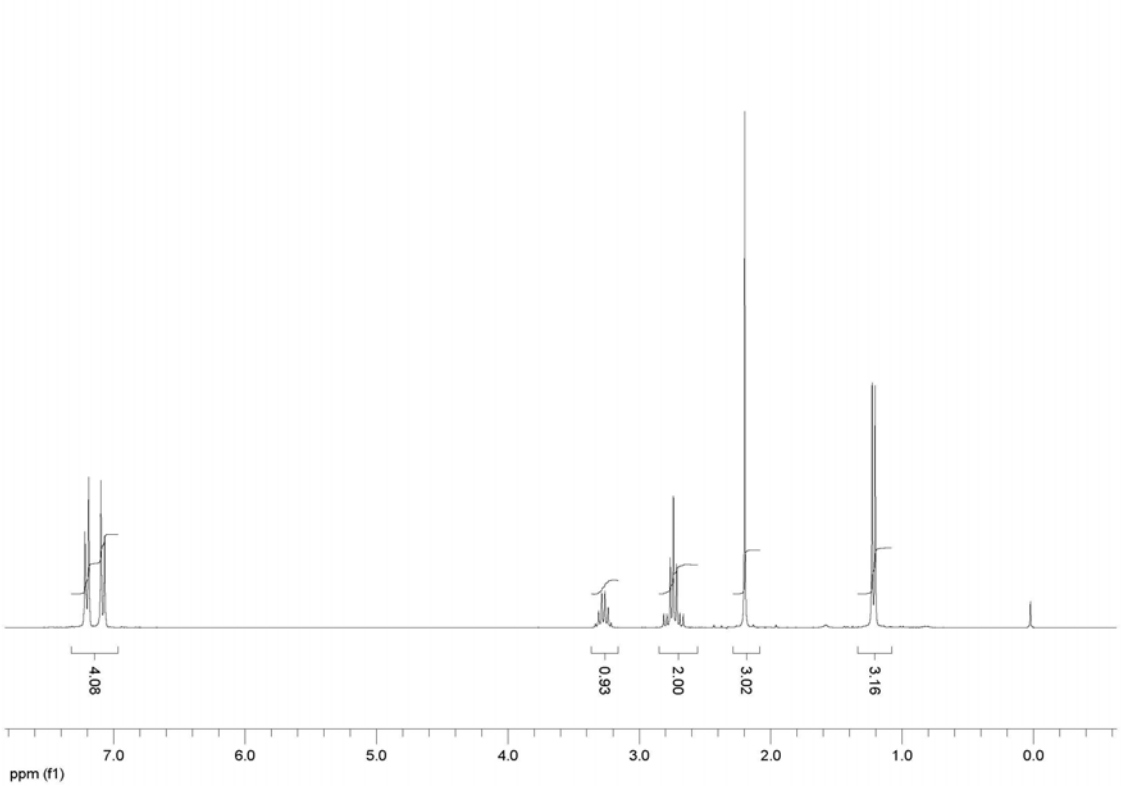
19 (^{1}H NMR)



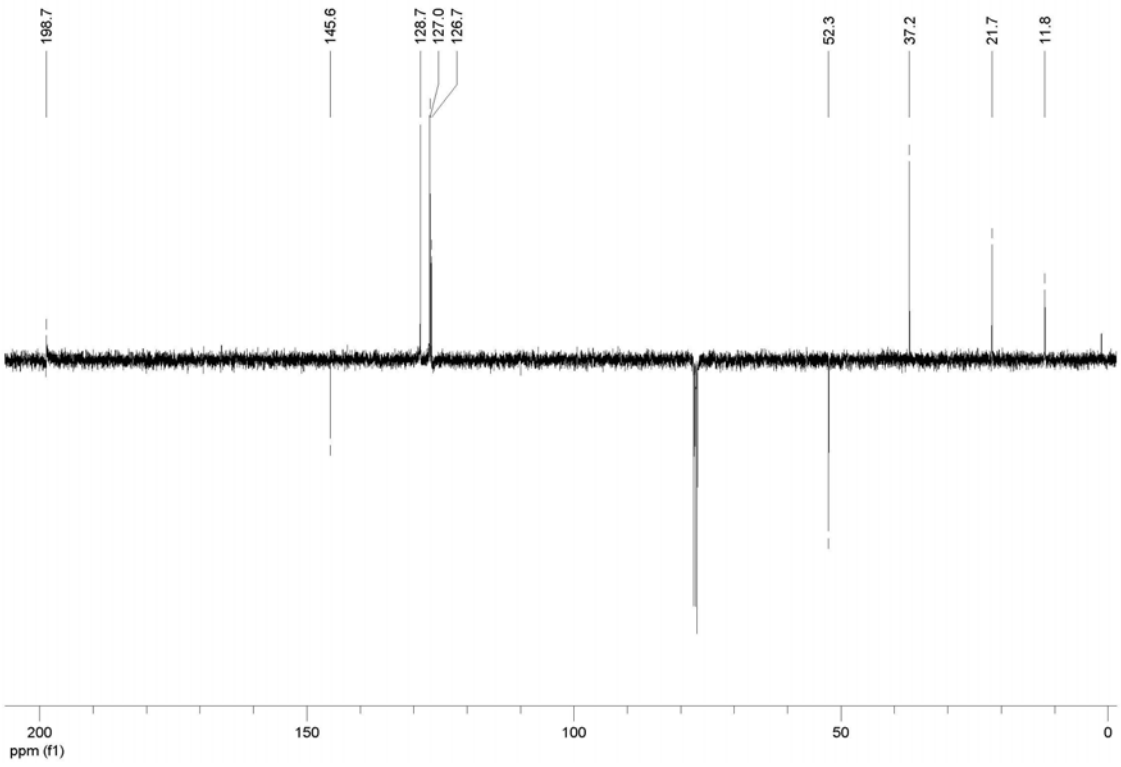
19 (^{13}C NMR)



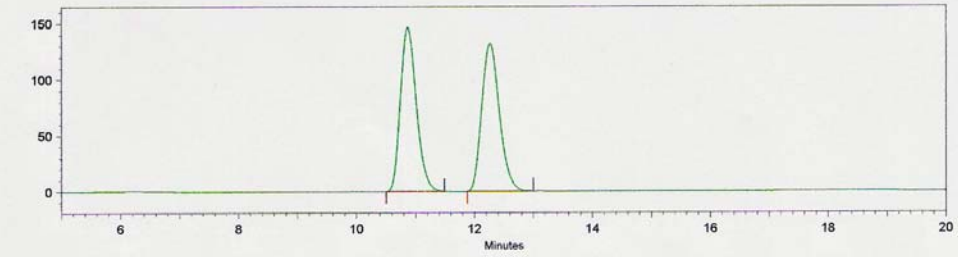
20 (^{1}H NMR)



20 (^{13}C NMR)



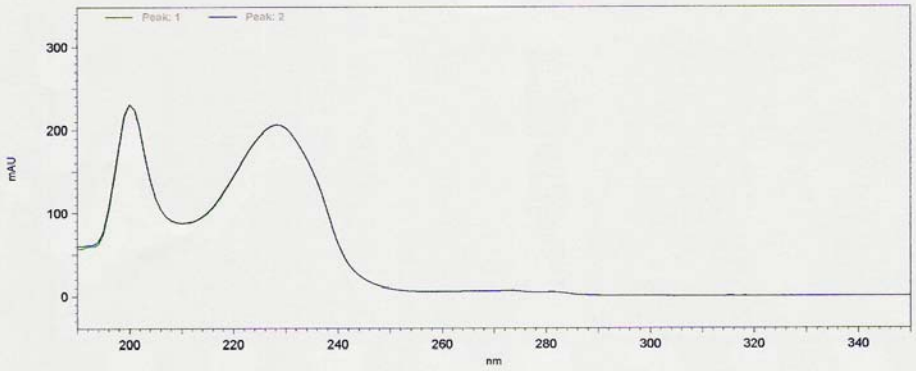
20 (HPLC)

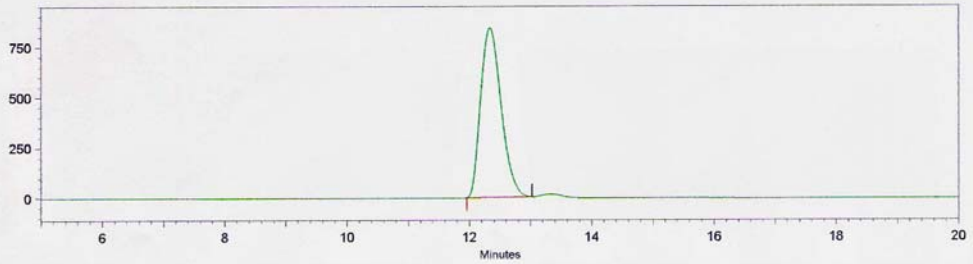


1: 235 nm, 8 nm

Pk #	Name	Retention Time	Area	Area Percent
1		10.869	2745141	50.00
2		12.267	2745481	50.00
Totals			5490622	100.00

Peak: 1



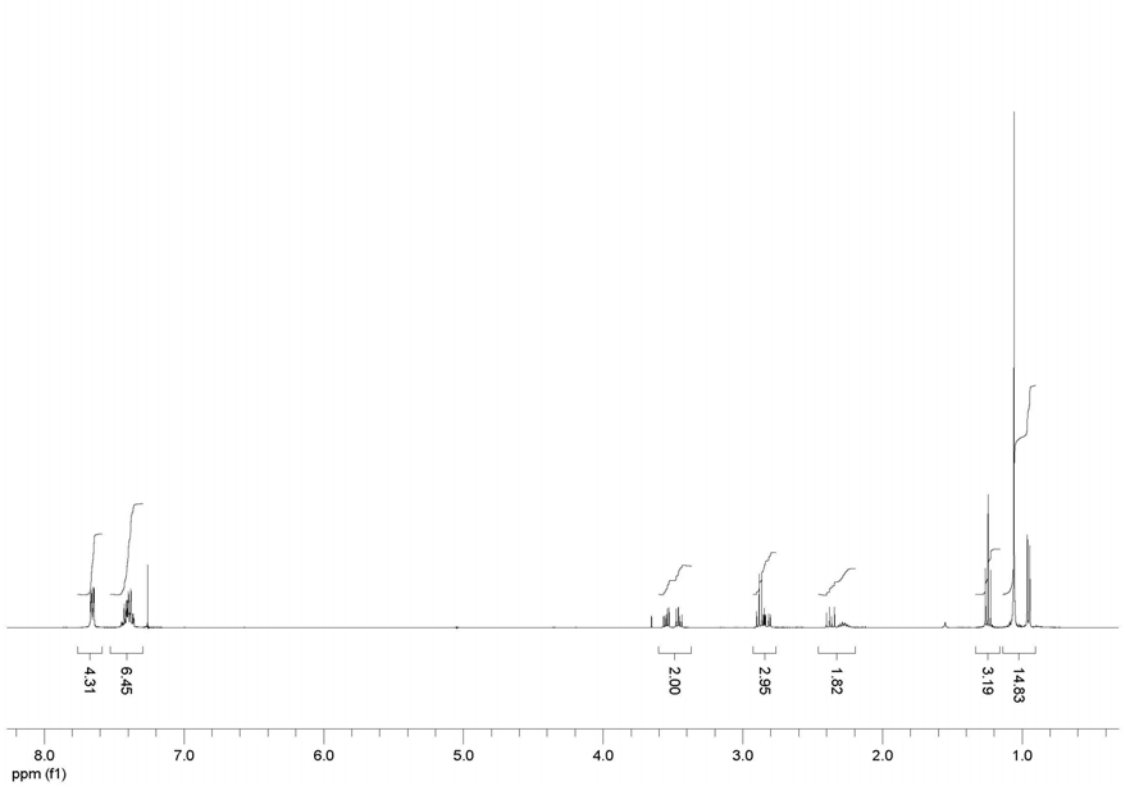


1: 235 nm, 8 nm

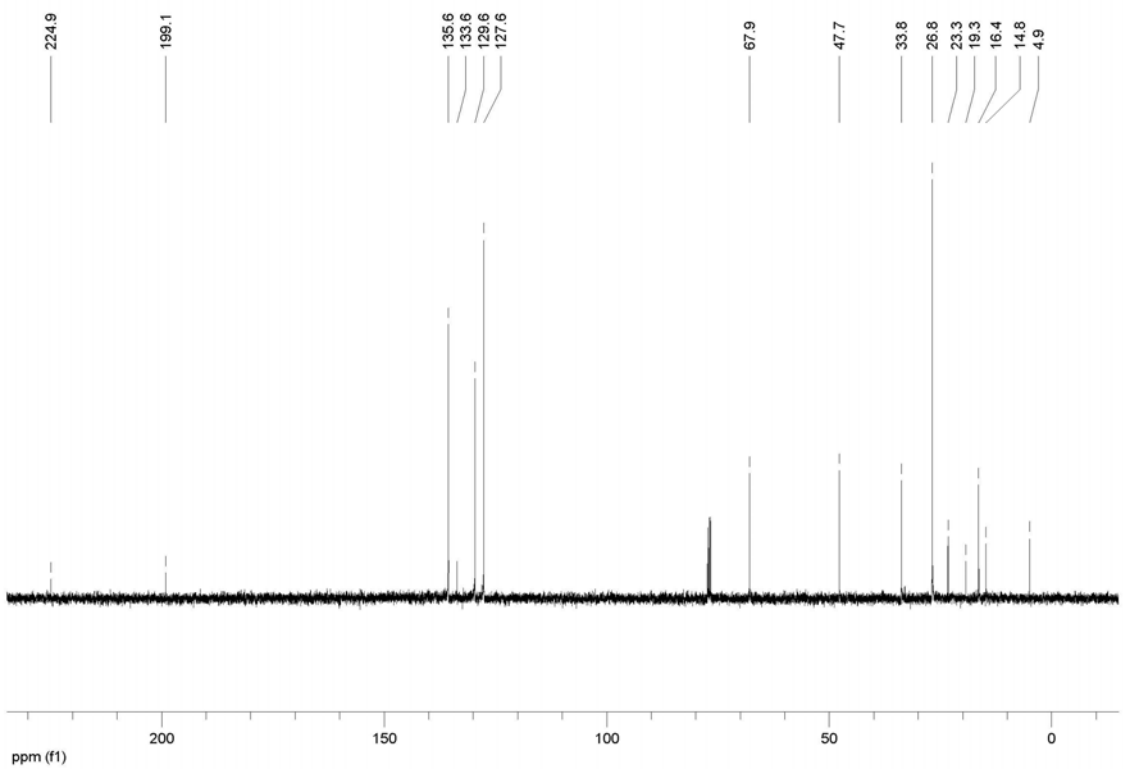
Pk #	Name	Retention Time	Area	Area Percent
1	1	12.341	19664662	100.00
	2			
Totals			19664662	100.00

Peak: 2

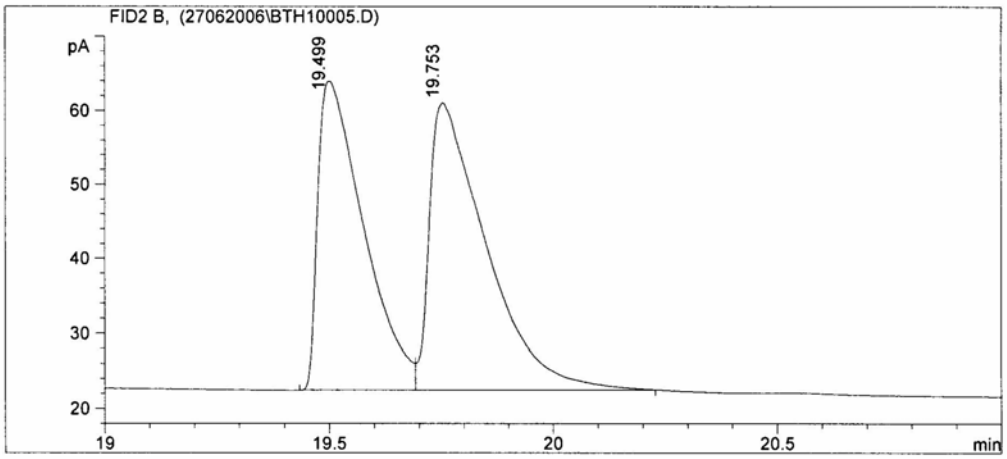
21 (^{1}H NMR)



21 (^{13}C NMR)

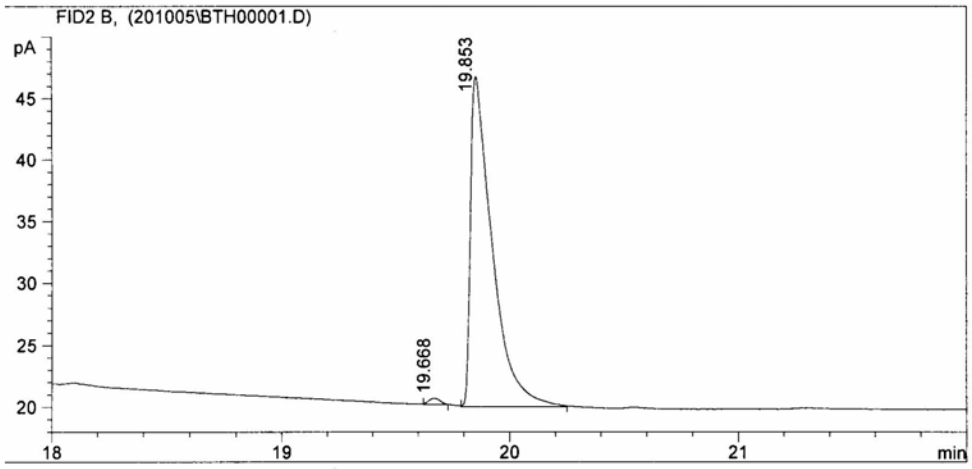


21 (GC Data for Lactone Derivative)



ignal 1: FID2 B,

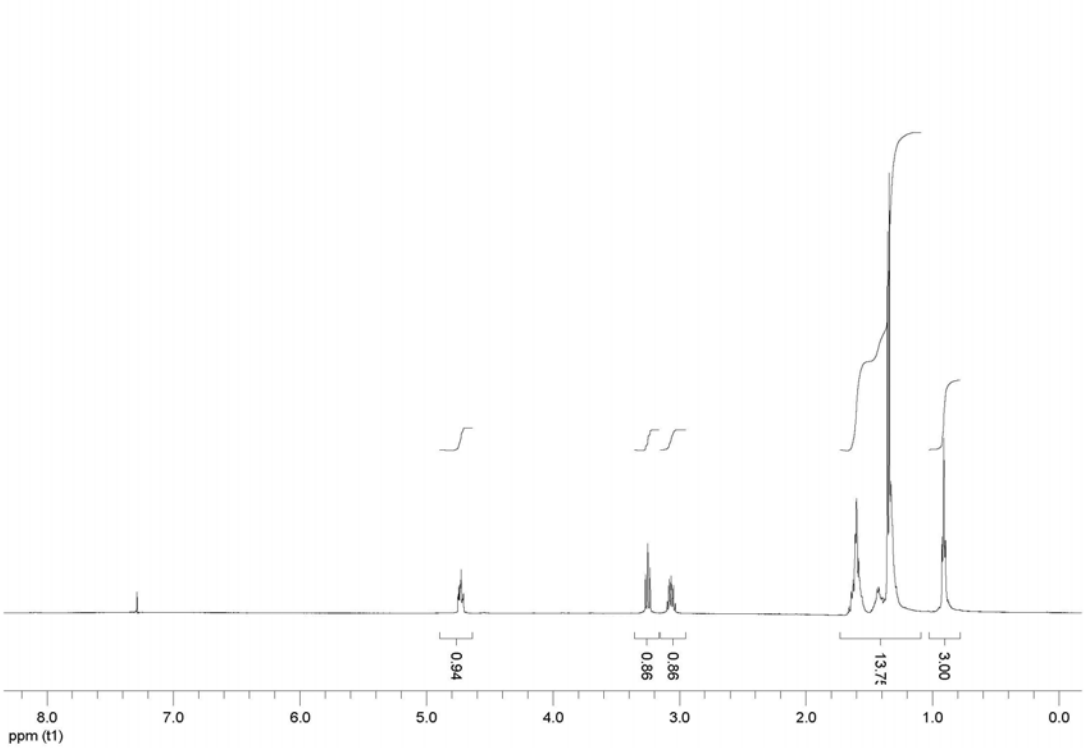
Peak #	RT [min]	Type	Name	Width [min]	Area	Area %	Response	Amount
1	19.499	MM		0.117	292.457	46.249	0.000	0.000
2	19.753	MM		0.147	339.903	53.751	0.000	0.000



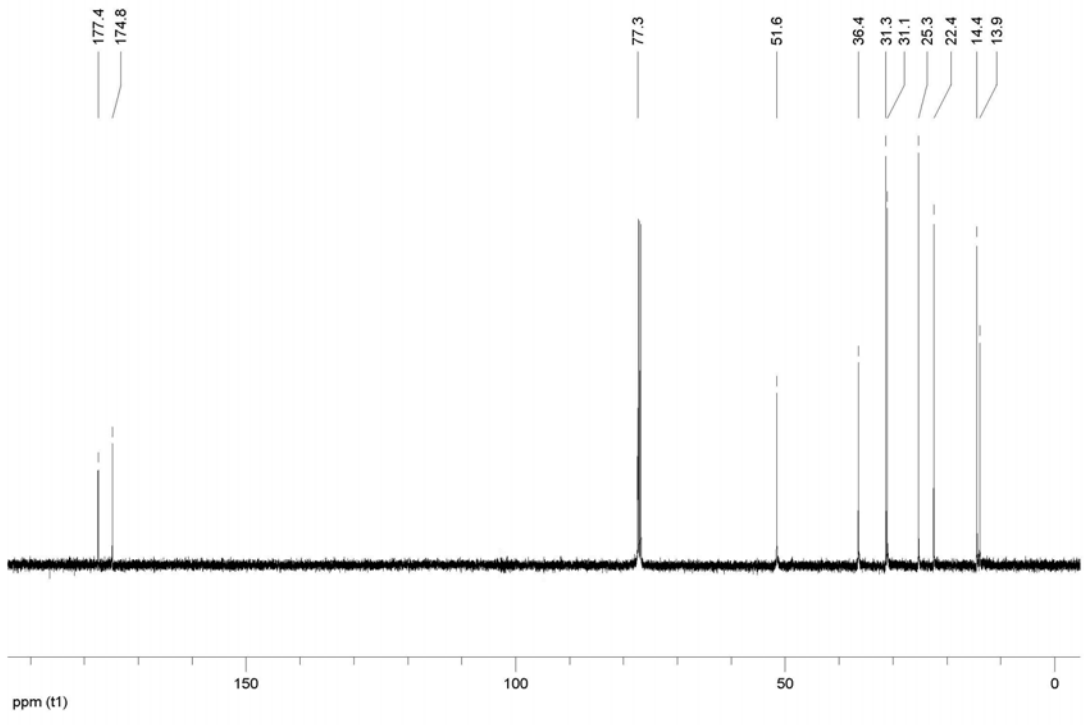
1: FID2 B,

RT [min]	Type	Name	Width [min]	Area	Area %	Response	Amount
19.668	MM		0.057	1.734	0.972	0.000	0.000
19.853	MM		0.110	176.570	99.028	0.000	0.000

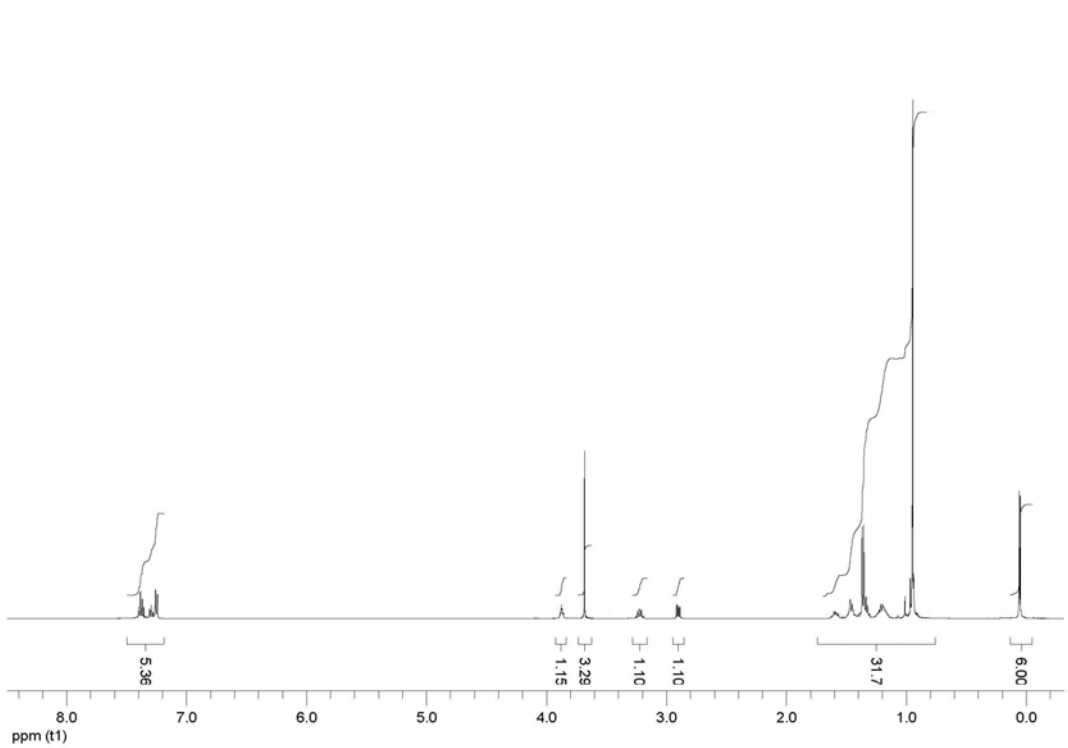
22 (^{1}H NMR)



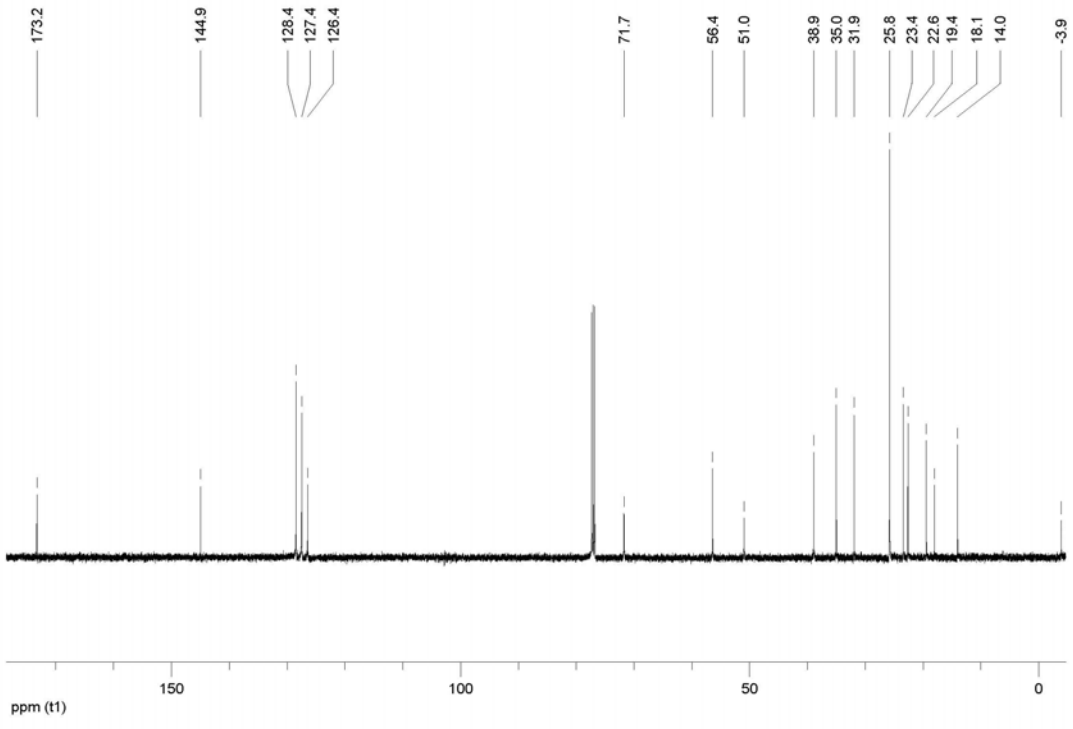
22 (^{13}C NMR)



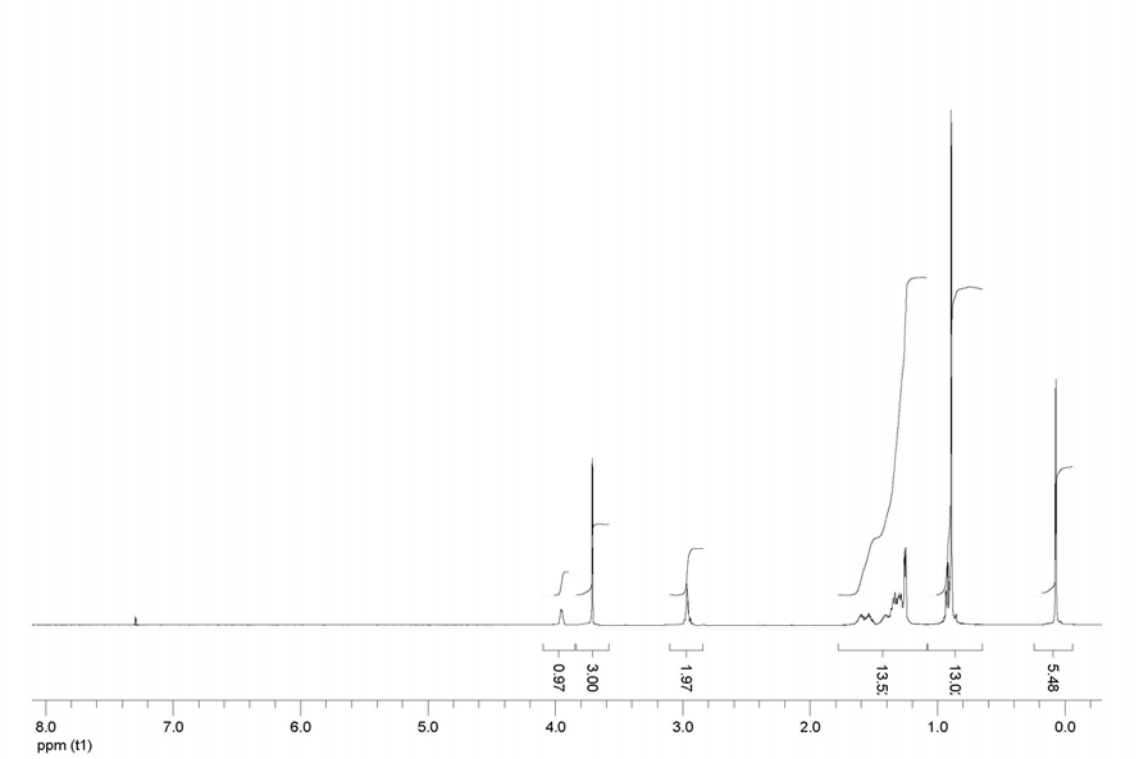
23 (^{1}H NMR)



23 (^{13}C NMR)



24 (^{1}H NMR)



24 (^{13}C NMR)